Test Report issued under the responsibility of:

TEST REPORT
IEC 60950-1
Information technology equipment - Safety - Part 1: General requirements

Report Reference No ..... :	E341351-A7-CB-2
Date of issue ..... :	2012-05-23
Total number of pages ..... :	56
CB Testing Laboratory ..... :	UL International Limited
Address ..... :	18/F Delta House, 3 On Yiu Street, Shatin, NT, Hong Kong
Applicant's name ..... :	GLOBTEK (HONG KONG) LTD
Address ..... :	UNIT 1402, BENSON TOWER 74 HUNG TO RD KWUN TONG KOWLOON HONG KONG
Test specification:	
Standard ..... :	IEC 60950-1:2005 (2nd Edition); Am 1:2009
Test procedure ..... :	CB Scheme
Non-standard test method ..... :	N/A
Test Report Form No. ..... :	IEC60950_1B
Test Report Form originator ..... :	SGS Fimko Ltd
Master TRF ..... :	2010-04

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

Test item description ..... :	Power Unit
Trade Mark ..... :	GlobTek, Inc..
Manufacturer ..... :	GLOBTEK (HONG KONG) LTD UNIT 1402, BENSON TOWER 74 HUNG TO RD KWUN TONG KOWLOON HONG KONG
Model/Type reference ..... :	GT-2S5024D-R-ES
Ratings ..... :	Input: 100-240 V, 1.5 A MAX, 50-60 Hz, 60-70 VA Output: 24 Vdc, 2.1 A, 50 W maximum.

Testing procedure and testing location:			
[x]	**CB Testing Laboratory**		
	Testing location / address..... :	UL International Limited 18/F Delta House, 3 On Yiu Street, Shatin, NT, Hong Kong	
[ ]	**Associated CB Test Laboratory**		
	Testing location / address..... :		
	Tested by (name + signature) ..... :	Paul Wan	
	Approved by (name + signature) ... :	Henry Ho	
[ ]	**Testing Procedure: TMP**		
	Tested by (name + signature) ..... :		
	Approved by (+ signature) ..... :		
	Testing location / address..... :		
[ ]	**Testing Procedure: WMT**		
	Tested by (name + signature) ..... :		
	Witnessed by (+ signature)..... :		
	Approved by (+ signature) ..... :		
	Testing location / address..... :		
[ ]	**Testing Procedure: SMT**		
	Tested by (name + signature) ..... :		
	Approved by (+ signature) ..... :		
	Supervised by (+ signature) ..... :		
	Testing location / address..... :		
[ ]	**Testing Procedure: RMT**		
	Tested by (name + signature) ..... :		
	Approved by (+ signature) ..... :		
	Supervised by (+ signature) ..... :		
	Testing location / address..... :		

List of Attachments

National Differences (33 pages)

Enclosures (43 pages)

Summary Of Testing

Unless otherwise indicated, all tests were conducted at UL International Limited 18/F Delta House, 3 On Yiu Street, Shatin, NT, Hong Kong.

	Tests performed (name of test and test clause)	**Testing location / Comments**
	End Product Reference Page	

General Guidelines

Power Supply Reference Page

Capacitance Discharge (2.1.1.7)

Summary of Compliance with National Differences:

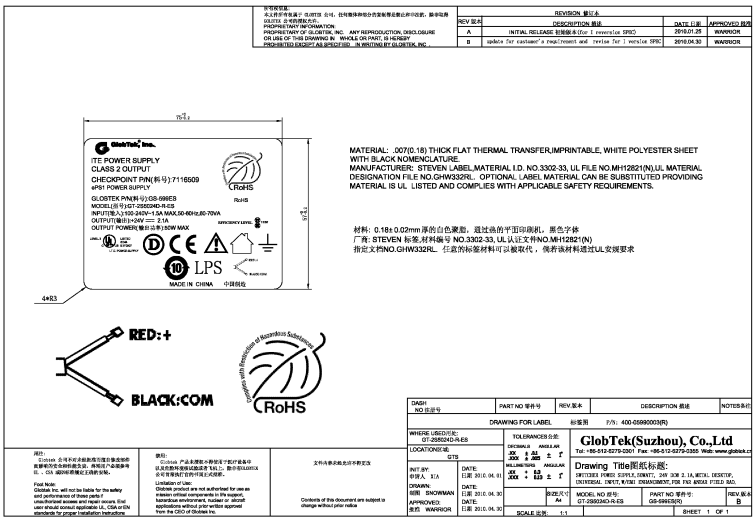
Countries outside the CB Scheme membership may also accept this report.

List of countries addressed: AT, BE, CA, CH, CN, CZ, DE, DK, ES, EU, FR, GB, GR, HU, IE, IT, NL, PL, PT, SE, SG, SI, SK, US

The product fulfills the requirements of: EN 60950-1:2006 + A11:2009+A1:2010+A12:2011

Copy of Marking Plate

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Test item particulars :	
Equipment mobility ..... :	movable
Connection to the mains ..... :	pluggable A
Operating condition ..... :	continuous
Access location ..... :	operator accessible
Over voltage category (OVC) ..... :	OVC II
Mains supply tolerance (%) or absolute mains supply values ..... :	+10%, -10%
Tested for IT power systems ..... :	No
IT testing, phase-phase voltage (V) ..... :	N/A
Class of equipment ..... :	Class I (earthed)
Considered current rating of protective device as part of the building installation (A) ..... :	1.5
Pollution degree (PD) ..... :	PD 2
IP protection class ..... :	IP X0
Altitude of operation (m) ..... :	< 2000
Altitude of test laboratory (m) ..... :	< 2000
Mass of equipment (kg) ..... :	0.58
Possible test case verdicts:	
- test case does not apply to the test object ..... :	N / A
- test object does meet the requirement ..... :	P(Pass)
- test object does not meet the requirement ..... :	F(Fail)
Testing:	
Date(s) of receipt of test item ..... :	2012-05-10
Date(s) of Performance of tests ..... :	2012-05-11

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.
"(see appended table)" refers to a table appended to the report.

Throughout this report a point is used as the decimal separator.

Manufacturer's Declaration per Sub Clause 6.25 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory and a declaration form the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided ..... Yes

When differences exist, they shall be identified in the General Product Information section.

Name and address of Factory(ies): GLOBTEK (SUZHOU) CO LTD

BLDG 4, #76
JINLING EAST RD
SUZHOU PARK
SUZHOU
JIANGSU 215021 CHINA

GLOBTEK, INC.
186 VETERANS DR. NORTHVALE,
NJ 07647 USA

GENERAL PRODUCT INFORMATION:

Report Summary

All applicable tests according to the referenced standard(s) have been carried out.

Product Description

This product is a power unit intended to be used for information technology equipment in TN power systems and are for indoor use only. It consists of an isolated transformer with electronic circuitry housed in a metal enclosure.

Model Differences

N/A

Additional Information

This report is a re-issue of the CB Report Reference Number E170507-A22-CB-1, CB Test Certificate US/12109/UL dated 2007-11-21. Based on previously conducted testing under the original investigation, the review of the product and technical documentation, including photos, schematics, and test data, it has been determined that the product continues to comply with the standard. All testing was conducted under the original investigation.

Reissue (12CA22601):
1. Upgrade the standard to IEC 60950-1, 2nd Edition including Amendment 1 issued December 2009.
2. Add alternate sources of components (Appliance Inlet, CY1, CY2, VR1, U4, Label)
3. Add one factory: Globtek Inc.
4. Correct trademark to "Globtek, Inc"
5. Change NCB to Demko per client request.

This report is a reissue of CBTR Ref. No. E341351-A7-CB-1, CB Test Certificate Ref. No.US-18750-UL. Based on previously conducted testing and the review of prodict construction, only the following test was deemed necessary.

Capacitance Discharge (2.1.1.7)

Technical Considerations

- The product was investigated to the following additional standards: EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 (which includes all European national differences, including those specified in this test report).
- Evaluated as a wall mount unit. --
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 40°C --
- The means of connection to the mains supply is: Pluggable A --
- The product is intended for use on the following power systems: TN --
- The following circuit locations (with circuit/schematic designation) were investigated as a limited power source (LPS): Vout (+ to -). Additionally evaluated to Class 2 requirements of UL1310 for marking as a "Class 2 Output". --
- The equipment disconnect device is considered to be: Appliance inlet --
- The following are available from the Applicant upon request: Specific data sheets for LED indicators that are class I and operate at wavelength in the 400-710 nm range. --

Abbreviations used in the report:

- normal condition	N.C.	- single fault condition	S.F.C
- operational insulation	OP	- basic insulation	BI
- basic insulation between parts of opposite polarity:	BOP	- supplementary insulation	SI
- double insulation	DI	- reinforced insulation	RI

Indicate used abbreviations (if any)

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

1	**GENERAL**		Pass
1.5	Components		Pass
1.5.1	General		Pass
	Comply with IEC 60950-1 or relevant component standard	(See Critical Component List)	Pass
1.5.2	Evaluation and testing of components	Certified components are used in accordance with their ratings, certifications and they comply with applicable parts of this Standard. Components not certified are used in accordance with their ratings and they comply with applicable parts of this Standard and the relevant component Standard. Components, for which no relevant IEC Standard exist, have been tested under the condition occurring in the equipment, using applicable parts of this Standard.	Pass
1.5.3	Thermal controls		N/A
1.5.4	Transformers	Transformers comply with relevant requirements including Annex C.	Pass
1.5.5	Interconnecting cables	VW-1 or FT-1, max. 3.05 m length.	Pass
1.5.6	Capacitors bridging insulation	Line-to-line capacitors are subclass X1 or X2. Primary-to-earth capacitors are subclass Y1 or Y2. Primary-to-secondary capacitors are subclass Y1.	Pass
1.5.7	Resistors bridging insulation		Pass
1.5.7.1	Resistors bridging functional, basic or supplementary insulation		Pass
1.5.7.2	Resistors bridging double or reinforced insulation between a.c. mains and other circuits		N/A
1.5.7.3	Resistors bridging double or reinforced insulation		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	between a.c. mains and antenna or coaxial cable		
1.5.8	Components in equipment for IT power systems		Pass
1.5.9	Surge suppressors		Pass
1.5.9.1	General		Pass
1.5.9.2	Protection of VDRs		Pass
1.5.9.3	Bridging of functional insulation by a VDR		Pass
1.5.9.4	Bridging of basic insulation by a VDR		N/A
1.5.9.5	Bridging of supplementary, double or reinforced insulation by a VDR		N/A
1.6	**Power interface**		Pass
1.6.1	AC power distribution systems	AC power distribution systems are classified as TN.	Pass
1.6.2	Input current	The steady state input current of the equipment did not exceed the RATED CURRENT by more than 10% under NORMAL LOAD. See Test Record for details.	Pass
1.6.3	Voltage limit of hand-held equipment	Not hand-held equipment .	N/A
1.6.4	Neutral conductor	Neutral is insulated from earth with basic insulation.	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7	**Marking and instructions**		Pass
1.7.1	Power rating and identification markings	Rating marking readily visible to operator.	Pass
1.7.1.1	Power rating mark		Pass
	Multiple mains supply connections ..... :		N/A
	Rated voltage(s) or voltage range(s) (V) ..... :	100-240Vac	Pass
	Symbol for nature of supply, for d.c. only ..... :	AC source	N/A
	Rated frequency or rated frequency range (Hz) .... :	50-60Hz	Pass
	Rated current (mA or A) ..... :	1.5A MAX	Pass
1.7.1.2	Identification markings		Pass
	Manufacturer's name or trademark or identification mark ..... :	GlobTek, Inc.	Pass
	Model identification or type reference ..... :	GT-2S5024D-R-ES	Pass
	Symbol for Class II equipment only ..... :		N/A
	Other markings and symbols ..... :	Additional marking may be provided when submitted for national approval.	Pass
1.7.2	Safety instructions and marking	Operating/safety instructions made available to the user.	Pass
1.7.2.1	General		N/A
1.7.2.2	Disconnect devices		Pass
1.7.2.3	Overcurrent protective device		Pass
1.7.2.4	IT Power distribution systems		N/A
1.7.2.5	Operator access with a tool		N/A
1.7.2.6	Ozone		N/A
1.7.3	Short duty cycles		N/A
1.7.4	Supply voltage adjustment ..... :	Equipment is auto-ranging.	N/A
	Method and means of adjustment; reference to installation instructions ..... :		N/A
1.7.5	Power outlets on the equipment ..... :	No standard power outlets are provided.	N/A
1.7.6	Fuse identification (marking, special fusing characteristics, cross-reference) ..... :	F1: T2.0 A, 250 Vac marked on PWB near primary input fuse.	Pass
1.7.7	Wiring terminals		Pass
1.7.7.1	Protective earthing and bonding terminals ..... :	The earth terminal is marked with the standard earth symbol	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
		(60417-2-IEC-5019) near the terminal.	
1.7.7.2	Terminals for a.c. mains supply conductors		N/A
1.7.7.3	Terminals for d.c. mains supply conductors		N/A
1.7.8	Controls and indicators		N/A
1.7.8.1	Identification, location and marking ..... :	No indicator, control affecting safety provided.	N/A
1.7.8.2	Colours ..... :	A green LED is illuminated when the unit is operating.	N/A
1.7.8.3	Symbols according to IEC 60417 ..... :	There are no switches in the equipment.	N/A
1.7.8.4	Markings using figures..... :	Figures are not used for indicating different positions of controls.	N/A
1.7.9	Isolation of multiple power sources ..... :	There is only one connection to hazardous voltages.	N/A
1.7.10	Thermostats and other regulating devices ..... :	No thermostats or similar regulating devices.	N/A
1.7.11	Durability	All markings provided on UL Recognized Component labels suitable for surface they are applied upon and meet the durability test.	Pass
1.7.12	Removable parts	Marking is not placed on removable parts.	Pass
1.7.13	Replaceable batteries..... :	No batteries provided.	N/A
	Language(s) ..... :		-
1.7.14	Equipment for restricted access locations..... :		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2	**PROTECTION FROM HAZARDS**		Pass
2.1	Protection from electric shock and energy hazards		Pass
2.1.1	Protection in operator access areas		Pass
2.1.1.1	Access to energized parts	No operator access to energized parts.	Pass
	Test by inspection..... :	Operator cannot make contact with any parts with hazardous voltage. No openings in product.	Pass
	Test with test finger (Figure 2A) ..... :		N/A
	Test with test pin (Figure 2B)..... :		N/A
	Test with test probe (Figure 2C)..... :	No TNV present.	N/A
2.1.1.2	Battery compartments		N/A
2.1.1.3	Access to ELV wiring		N/A
	Working voltage (Vpeak or Vrms); minimum distance through insulation (mm) ..... :		-
2.1.1.4	Access to hazardous voltage circuit wiring		N/A
2.1.1.5	Energy hazards ..... :	The output of the power supply is not an energy hazard.	Pass
2.1.1.6	Manual controls		N/A
2.1.1.7	Discharge of capacitors in equipment		Pass
	Measured voltage (V); time-constant (s) ..... :	1 second; 136 V	-
2.1.1.8	Energy hazards - d.c. mains supply		N/A
	a) Capacitor connected to the d.c. mains supply .. :		N/A
	b) Internal battery connected to the mains supply :		N/A
2.1.1.9	Audio amplifiers..... :		N/A
2.1.2	Protection in service access areas		N/A
2.1.3	Protection in restricted access locations	The unit is not intended to be used in restricted locations.	N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.2	**SELV circuits**		Pass
2.2.1	General requirements		Pass
2.2.2	Voltages under normal conditions (V) ..... :	24.23 V dc	Pass
2.2.3	Voltages under fault conditions (V) ..... :	Under fault conditions voltages never exceed 71 Vp and 120 V dc and do not exceed 42.4 Vp or 60 V dc for more than 0.2 sec.	Pass
2.2.4	Connection of SELV circuits to other circuits ..... :	The SELV circuits are not connected to other circuits other than protective earth.	Pass
2.3	**TNV circuits**		Pass
2.3.1	Limits		N/A
	Type of TNV circuits ..... :		-
2.3.2	Separation from other circuits and from accessible parts		Pass
2.3.2.1	General requirements		Pass
2.3.2.2	Protection by basic insulation		Pass
2.3.2.3	Protection by earthing		Pass
2.3.2.4	Protection by other constructions ..... :		N/A
2.3.3	Separation from hazardous voltages		N/A
	Insulation employed..... :		-
2.3.4	Connection of TNV circuits to other circuits		N/A
	Insulation employed..... :		-
2.3.5	Test for operating voltages generated externally		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.4	**Limited current circuits**		Pass
2.4.1	General requirements	Requirements applied to bridging capacitor CY3.	Pass
2.4.2	Limit values		Pass
	Frequency (Hz) ..... :	60 Hz	-
	Measured current (mA)..... :	0.267 mA	-
	Measured voltage (V) ..... :	N/A	-
	Measured circuit capacitance (nF or uF)..... :	N/A	-
2.4.3	Connection of limited current circuits to other circuits		N/A
2.5	**Limited power sources**		Pass
	a) Inherently limited output		Pass
	b) Impedance limited output		N/A
	c) Regulating network limited output under normal operating and single fault condition		N/A
	d) Overcurrent protective device limited output		N/A
	Max. output voltage (V), max. output current (A), max. apparent power (VA)..... :	30 V, 3.0 A, 93 W	-
	Current rating of overcurrent protective device (A) :		-
	Use of integrated circuit (IC) current limiters ..... :		-

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6	**Provisions for earthing and bonding**		Pass
2.6.1	Protective earthing		Pass
2.6.2	Functional earthing		N/A
2.6.3	Protective earthing and protective bonding conductors		Pass
2.6.3.1	General	Protective bonding conductors/terminals sized appropriately for application.	Pass
2.6.3.2	Size of protective earthing conductors		N/A
	Rated current (A), cross-sectional area (mm²), AWG ..... :		-
2.6.3.3	Size of protective bonding conductors		Pass
	Rated current (A), cross-sectional area (mm²), AWG ..... :	Comply with 2.6.3.4	-
	Protective current rating (A), cross-sectional area (mm²), AWG..... :	1.5A, 18 AWG	-
2.6.3.4	Resistance of earthing conductors and their terminations; resistance (ohm), voltage drop (V), test current (A), duration (min) ..... :	0.015 ohm, 40 A	Pass
2.6.3.5	Colour of insulation..... :	Protective bonding conductors are green with yellow stripe.	Pass
2.6.4	Terminals		Pass
2.6.4.1	General		Pass
2.6.4.2	Protective earthing and bonding terminals	Terminals comply with Table 3E.	Pass
	Rated current (A), type, nominal thread diameter (mm) ..... :	1.5 A, 3.5 mm	-
2.6.4.3	Separation of the protective earthing conductor from protective bonding conductors		N/A
2.6.5	Integrity of protective earthing		Pass
2.6.5.1	Interconnection of equipment		N/A
2.6.5.2	Components in protective earthing conductors and protective bonding conductors		N/A
2.6.5.3	Disconnection of protective earth	An IEC60320 appliance inlet is used.	Pass
2.6.5.4	Parts that can be removed by an operator		N/A
2.6.5.5	Parts removed during servicing		N/A
2.6.5.6	Corrosion resistance		Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.6.5.7	Screws for protective bonding		N/A
2.6.5.8	Reliance on telecommunication network or cable distribution system		N/A
2.7	**Overcurrent and earth fault protection in primary circuits**		Pass
2.7.1	Basic requirements		Pass
	Instructions when protection relies on building installation		N/A
2.7.2	Faults not covered in 5.3.7		Pass
2.7.3	Short-circuit backup protection	Protective devices have adequate breaking (rupturing) capacity to interrupt the maximum fault current (including short-circuit current).	Pass
2.7.4	Number and location of protective devices ..... :	One protective device in the "LIVE" phase	Pass
2.7.5	Protection by several devices		N/A
2.7.6	Warning to service personnel..... :		N/A
2.8	**Safety interlocks**		N/A
2.8.1	General principles		N/A
2.8.2	Protection requirements		N/A
2.8.3	Inadvertent reactivation		N/A
2.8.4	Fail-safe operation		N/A
	Protection against extreme hazard		N/A
2.8.5	Moving parts		N/A
2.8.6	Overriding		N/A
2.8.7	Switches, relays and their related circuits		N/A
2.8.7.1	Separation distances for contact gaps and their related circuits (mm) ..... :		N/A
2.8.7.2	Overload test		N/A
2.8.7.3	Endurance test		N/A
2.8.7.4	Electric strength test		N/A
2.8.8	Mechanical actuators		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

2.9	**Electrical insulation**		Pass
2.9.1	Properties of insulating materials	Natural rubber, hygroscopic materials and materials containing asbestos are not used as insulating materials. Electric strength test was conducted after the humidity treatment. See below.	Pass
2.9.2	Humidity conditioning	Humidity treatment performed for 48 hrs.	Pass
	Relative humidity (%), temperature (°C)..... :	93 %RH	-
2.9.3	Grade of insulation	Reinforced Insulation between Primary and SELV, Basic Insulation between Primary and Earth.	Pass
2.9.4	Separation from hazardous voltages		Pass
	Method(s) used..... :	Method 1 used.	-

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10	**Clearances, creepage distances and distances through insulation**		Pass
2.10.1	General	Pollution degree 2 applicable.	Pass
2.10.1.1	Frequency..... :	50-60 Hz	Pass
2.10.1.2	Pollution degrees..... :	Pollution Degree 2	Pass
2.10.1.3	Reduced values for functional insulation		N/A
2.10.1.4	Intervening unconnected conductive parts		N/A
2.10.1.5	Insulation with varying dimensions		N/A
2.10.1.6	Special separation requirements		N/A
2.10.1.7	Insulation in circuits generating starting pulses		N/A
2.10.2	Determination of working voltage	Considered	Pass
2.10.2.1	General		Pass
2.10.2.2	RMS working voltage		Pass
2.10.2.3	Peak working voltage		Pass
2.10.3	Clearances	(see appended table 2.10.3 and 2.10.4).	Pass
2.10.3.1	General		Pass
2.10.3.2	Mains transient voltages		Pass
	a) AC mains supply ..... :	Overvoltage Category II	Pass
	b) Earthed d.c. mains supplies ..... :		N/A
	c) Unearthed d.c. mains supplies ..... :		N/A
	d) Battery operation ..... :		N/A
2.10.3.3	Clearances in primary circuits	(see appended table 2.10.3 and 2.10.4).	Pass
2.10.3.4	Clearances in secondary circuits	Functional insulation, see 5.3.4.	Pass
2.10.3.5	Clearances in circuits having starting pulses		N/A
2.10.3.6	Transients from a.c. mains supply..... :	Overvoltage Category II	Pass
2.10.3.7	Transients from d.c. mains supply..... :		N/A
2.10.3.8	Transients from telecommunication networks and cable distribution systems ..... :		N/A
2.10.3.9	Measurement of transient voltage levels		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply ..... :		N/A
	For a d.c. mains supply ..... :		N/A
	b) Transients from a telecommunication network		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
2.10.4	Creepage distances	(see appended table 2.10.3 and 2.10.4).	Pass
2.10.4.1	General		Pass
2.10.4.2	Material group and comparative tracking index		Pass
	CTI tests ..... :	Material group IIIb; 100 <= CTI < 175.	-
2.10.4.3	Minimum creepage distances		Pass
2.10.5	Solid insulation	Solid or laminated insulating materials having adequate thickness are provided.	Pass
2.10.5.1	General		Pass
2.10.5.2	Distances through insulation	(see appended table 2.10.5)	Pass
2.10.5.3	Insulating compound as solid insulation		Pass
2.10.5.4	Semiconductor devices	UL-Recognized optocoupler	Pass
2.10.5.5	Cemented joints		N/A
2.10.5.6	Thin sheet material - General		Pass
2.10.5.7	Separable thin sheet material		N/A
	Number of layers (pcs) ..... :		-
2.10.5.8	Non-separable thin sheet material		N/A
2.10.5.9	Thin sheet material - standard test procedure		Pass
	Electric strength test ..... :	(see appended table 2.10.5)	-
2.10.5.10	Thin sheet material - alternative test procedure		N/A
	Electric strength test ..... :		-
2.10.5.11	Insulation in wound components	UL-Recognized triple-insulating windings used	Pass
2.10.5.12	Wire in wound components		Pass
	Working voltage ..... :	Exceed 71V	Pass
	a) Basic insulation not under stress ..... :		N/A
	b) Basic, supplementary, reinforced insulation..... :	Reinforced	Pass
	c) Compliance with Annex U ..... :		N/A
	Two wires in contact inside wound component; angle between 45° and 90° ..... :	Physical separation in the form of insulating sleeving provided to relieve mechanical stress at the crossover point.	Pass
2.10.5.13	Wire with solvent-based enamel in wound components		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Electric strength test ..... :		-
	Routine test		N/A
2.10.5.14	Additional insulation in wound components		N/A
	Working voltage ..... :		N/A
	- Basic insulation not under stress ..... :		N/A
	- Supplementary, reinforced insulation ..... :		N/A
2.10.6	Construction of printed boards		Pass
2.10.6.1	Uncoated printed boards		Pass
2.10.6.2	Coated printed boards	No coated printed wiring boards.	N/A
2.10.6.3	Insulation between conductors on the same inner surface of a printed board		N/A
2.10.6.4	Insulation between conductors on different layers of a printed board		N/A
	Distance through insulation		N/A
	Number of insulation layers (pcs) ..... :		N/A
2.10.7	Component external terminations		N/A
2.10.8	Tests on coated printed boards and coated components		N/A
2.10.8.1	Sample preparation and preliminary inspection		N/A
2.10.8.2	Thermal conditioning		N/A
2.10.8.3	Electric strength test		N/A
2.10.8.4	Abrasion resistance test		N/A
2.10.9	Thermal cycling		N/A
2.10.10	Test for Pollution Degree 1 environment and insulating compound		N/A
2.10.11	Tests for semiconductor devices and cemented joints		N/A
2.10.12	Enclosed and sealed parts	UL-Recognized optocouplers used	Pass

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

3	**WIRING, CONNECTIONS AND SUPPLY**		Pass
3.1	General		Pass
3.1.1	Current rating and overcurrent protection		Pass
3.1.2	Protection against mechanical damage	The wires are routed away from sharp edges and parts which could damage insulation.	Pass
3.1.3	Securing of internal wiring		Pass
3.1.4	Insulation of conductors	Uninsulated conductors have been adequately fixed to prevent, in normal use, any reduction of creepage or clearance distances below those prescribed by in 2.9.	Pass
3.1.5	Beads and ceramic insulators		N/A
3.1.6	Screws for electrical contact pressure	All electrical screw connections are by metal screw with more than 2 threads into a metal plate.	Pass
3.1.7	Insulating materials in electrical connections		N/A
3.1.8	Self-tapping and spaced thread screws		N/A
3.1.9	Termination of conductors	Conductors suitably terminated, creepage and clearances maintained, second securing for soldered terminations provided.	Pass
	10 N pull test		Pass
3.1.10	Sleeving on wiring		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.2	**Connection to mains supply**		Pass
3.2.1	Means of connection	The unit is provided with an appliance inlet.	Pass
3.2.1.1	Connection to an a.c. mains supply		Pass
3.2.1.2	Connection to a d.c. mains supply		N/A
3.2.2	Multiple supply connections	Single mains supply	N/A
3.2.3	Permanently connected equipment		N/A
	Number of conductors, diameter of cable and conduits (mm) ..... :		-
3.2.4	Appliance inlets		Pass
3.2.5	Power supply cords	Not provided with unit.	N/A
3.2.5.1	AC power supply cords		N/A
	Type ..... :		-
	Rated current (A), cross-sectional area (mm²), AWG ..... :		-
3.2.5.2	DC power supply cords		N/A
3.2.6	Cord anchorages and strain relief		N/A
	Mass of equipment (kg), pull (N) ..... :		-
	Longitudinal displacement (mm) ..... :		-
3.2.7	Protection against mechanical damage		N/A
3.2.8	Cord guards		N/A
	Diameter of minor dimension D (mm); test mass (g) ..... :		-
	Radius of curvature of cord (mm) ..... :		-
3.2.9	Supply wiring space		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.3	**Wiring terminals for connection of external conductors**		N/A
3.3.1	Wiring terminals		N/A
3.3.2	Connection of non-detachable power supply cords		N/A
3.3.3	Screw terminals		N/A
3.3.4	Conductor sizes to be connected		N/A
	Rated current (A), cord/cable type, cross-sectional area (mm²) ..... :		-
3.3.5	Wiring terminal sizes		N/A
	Rated current (A), type and nominal thread diameter (mm) ..... :		-
3.3.6	Wiring terminals design		N/A
3.3.7	Grouping of wiring terminals		N/A
3.3.8	Stranded wire		N/A
3.4	**Disconnection from the mains supply**		Pass
3.4.1	General requirement		Pass
3.4.2	Disconnect devices	Appliance inlet.	Pass
3.4.3	Permanently connected equipment		N/A
3.4.4	Parts which remain energized	No parts remain energized when the disconnect device is removed.	N/A
3.4.5	Switches in flexible cords	No isolating switch in the cord set.	Pass
3.4.6	Number of poles - single-phase and d.c. equipment	Disconnect device disconnects both poles simultaneously.	Pass
3.4.7	Number of poles - three-phase equipment	The equipment is single-phased.	N/A
3.4.8	Switches as disconnect devices	No such switch is provided.	N/A
3.4.9	Plugs as disconnect devices		N/A
3.4.10	Interconnected equipment	No interconnection of hazardous voltages.	N/A
3.4.11	Multiple power sources	One power source only.	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.5	**Interconnection of equipment**		Pass
3.5.1	General requirements	Output of power supply is a limited power source.	Pass
3.5.2	Types of interconnection circuits ..... :	Interconnection circuits are SELV CIRCUITS.	Pass
3.5.3	ELV circuits as interconnection circuits		N/A
3.5.4	Data ports for additional equipment		N/A
4	**PHYSICAL REQUIREMENTS**		Pass
4.1	Stability		N/A
	Angle of 10°		N/A
	Test force (N)..... :		N/A
4.2	**Mechanical strength**		Pass
4.2.1	General	See below	Pass
	Rack-mounted equipment		N/A
4.2.2	Steady force test, 10 N		Pass
4.2.3	Steady force test, 30 N		N/A
4.2.4	Steady force test, 250 N	No hazards as a result of the 250 N test.	Pass
4.2.5	Impact test		Pass
	Fall test		Pass
	Swing test		N/A
4.2.6	Drop test; height (mm)..... :		N/A
4.2.7	Stress relief test		Pass
4.2.8	Cathode ray tubes		N/A
	Picture tube separately certified ..... :		N/A
4.2.9	High pressure lamps		N/A
4.2.10	Wall or ceiling mounted equipment; force (N) ..... :	50 N	Pass
4.2.11	Rotating solid media		N/A
	Test to cover on the door..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.3	**Design and construction**		Pass
4.3.1	Edges and corners	All edges and corners are judged to be sufficiently well rounded so as not to constitute a hazard.	Pass
4.3.2	Handles and manual controls; force (N) ..... :		N/A
4.3.3	Adjustable controls	No setting for power supply voltage.	N/A
4.3.4	Securing of parts		N/A
4.3.5	Connection by plugs and sockets	The equipment does not have any interchangeable plugs/sockets.	N/A
4.3.6	Direct plug-in equipment		N/A
	Torque ..... :		N/A
	Compliance with the relevant mains plug standard:		N/A
4.3.7	Heating elements in earthed equipment		N/A
4.3.8	Batteries		N/A
	- Overcharging of a rechargeable battery		N/A
	- Unintentional charging of a non-rechargeable battery		N/A
	- Reverse charging of a rechargeable battery		N/A
	- Excessive discharging rate for any battery		N/A
4.3.9	Oil and grease	The insulation of the internal wiring is not exposed to oil, grease, etc.	N/A
4.3.10	Dust, powders, liquids and gases	The equipment does not produce or employ powders, liquids, or gases.	N/A
4.3.11	Containers for liquids or gases	The equipment does not contain liquid.	N/A
4.3.12	Flammable liquids ..... :	The equipment does not use any flammable liquids.	N/A
	Quantity of liquid (l) ..... :		N/A
	Flash point (°C) ..... :		N/A
4.3.13	Radiation	Ionizing radiation or laser or in which similar hazards are not presents.	Pass
4.3.13.1	General		Pass

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Clause	Requirement + Test	Result - Remark	Verdict
4.3.13.2	Ionizing radiation		N/A
	Measured radiation (pA/kg) ..... :		-
	Measured high-voltage (kV) ..... :		-
	Measured focus voltage (kV)..... :		-
	CRT markings..... :		-
4.3.13.3	Effect of ultraviolet (UV) radiation on materials		N/A
	Part, property, retention after test, flammability classification ..... :		N/A
4.3.13.4	Human exposure to ultraviolet (UV) radiation ..... :		N/A
4.3.13.5	Lasers (including laser diodes) and LEDs	This product contains only visible indicator LEDs (Class 1) operating in the range of 400 - 700 nm wavelength. No IEC60825-1 evaluation was deemed necessary. Additional review may be required at the discretion of the accepting NCB.	Pass
4.3.13.5.1	Lasers (including laser diodes)		N/A
	Laser class ..... :	See above	-
4.3.13.5.2	Light emitting diodes (LEDs)		Pass
4.3.13.6	Other types ..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.4	**Protection against hazardous moving parts**		N/A
4.4.1	General		N/A
4.4.2	Protection in operator access areas ..... :		N/A
	Household and home/office document/media shredders		N/A
4.4.3	Protection in restricted access locations ..... :		N/A
4.4.4	Protection in service access areas		N/A
4.4.5	Protection against moving fan blades	No fan provided.	N/A
4.4.5.1	General		N/A
	Not considered to cause pain or injury. a) ..... :		N/A
	Is considered to cause pain, not injury. b) ..... :		N/A
	Considered to cause injury. c) ..... :		N/A
4.4.5.2	Protection for users		N/A
	Use of symbol or warning ..... :		N/A
4.4.5.3	Protection for service persons		N/A
	Use of symbol or warning ..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.5	**Thermal requirements**		Pass
4.5.1	General		Pass
4.5.2	Temperature tests	The equipment and its component parts did not attain excessive temperatures during normal operation.	Pass
	Normal load condition per Annex L ..... :	Operated in the most unfavorable way of operation given in the operating instructions until steady conditions established. Permitted rises based on manufacturer's specified Tmra of 40°C.	-
4.5.3	Temperature limits for materials		Pass
4.5.4	Touch temperature limits		Pass
4.5.5	Resistance to abnormal heat..... :	It has been determined from examination of the physical characteristics of the materials used that the material meets the requirements of the test.	Pass
4.6	**Openings in enclosures**		N/A
4.6.1	Top and side openings		N/A
	Dimensions (mm) ..... :		-
4.6.2	Bottoms of fire enclosures	No openings.	N/A
	Construction of the bottom, dimensions (mm)..... :		-
4.6.3	Doors or covers in fire enclosures		N/A
4.6.4	Openings in transportable equipment		N/A
4.6.4.1	Constructional design measures		N/A
	Dimensions (mm) ..... :		-
4.6.4.2	Evaluation measures for larger openings		N/A
4.6.4.3	Use of metallized parts		N/A
4.6.5	Adhesives for constructional purposes		N/A
	Conditioning temperature (°C), time (weeks) ..... :		-

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Clause	Requirement + Test	Result - Remark	Verdict
4.7	**Resistance to fire**		Pass
4.7.1	Reducing the risk of ignition and spread of flame		Pass
	Method 1, selection and application of components wiring and materials		Pass
	Method 2, application of all of simulated fault condition tests		N/A
4.7.2	Conditions for a fire enclosure		Pass
4.7.2.1	Parts requiring a fire enclosure	Components in primary and secondary circuits are provided with fire enclosure.	Pass
4.7.2.2	Parts not requiring a fire enclosure		N/A
4.7.3	Materials		Pass
4.7.3.1	General		Pass
4.7.3.2	Materials for fire enclosures	The fire enclosure is metal.	N/A
4.7.3.3	Materials for components and other parts outside fire enclosures		N/A
4.7.3.4	Materials for components and other parts inside fire enclosures	All internal materials are rated V-2 or better or are mounted on a PWB rated V-1 or better.	Pass
4.7.3.5	Materials for air filter assemblies	No air filter assemblies.	N/A
4.7.3.6	Materials used in high-voltage components	No high-voltage components	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
5	**ELECTRICAL REQUIREMENTS AND SIMULATED ABNORMAL CONDITIONS**		Pass
5.1	Touch current and protective conductor current		Pass
5.1.1	General	Touch current levels did not exceed limits of Table 5A.	Pass
5.1.2	Configuration of equipment under test (EUT)	Single mains connection.	Pass
5.1.2.1	Single connection to an a.c. mains supply		Pass
5.1.2.2	Redundant multiple connections to an a.c. mains supply		N/A
5.1.2.3	Simultaneous multiple connections to an a.c. mains supply		N/A
5.1.3	Test circuit	Single phase equipment intended only for connection to star TN or TT system.	Pass
5.1.4	Application of measuring instrument	Tested using D.1 measuring instrument.	Pass
5.1.5	Test procedure		Pass
5.1.6	Test measurements		Pass
	Supply voltage (V) ..... :	264 V ac, 60 Hz	-
	Measured touch current (mA)..... :	0.119	-
	Max. allowed touch current (mA)..... :	3.5 mA	-
	Measured protective conductor current (mA)..... :		-
	Max. allowed protective conductor current (mA)... :		-
5.1.7	Equipment with touch current exceeding 3,5 mA		N/A
5.1.7.1	General..... :		N/A
5.1.7.2	Simultaneous multiple connections to the supply		N/A
5.1.8	Touch currents to telecommunication networks and cable distribution systems and from telecommunication networks	No TNV circuit.	N/A
5.1.8.1	Limitation of the touch current to a telecommunication network or to a cable distribution system	No TNV circuit.	N/A
	Supply voltage (V) ..... :		-
	Measured touch current (mA)..... :		-
	Max. allowed touch current (mA)..... :		-
5.1.8.2	Summation of touch currents from telecommunication networks		N/A
	a) EUT with earthed telecommunication ports ..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	b) EUT whose telecommunication ports have no reference to protective earth		N/A
5.2	**Electric strength**		Pass
5.2.1	General	Based on the electric strength test the use of the insulating materials within the equipment is satisfactory.	Pass
5.2.2	Test procedure	(see appended table 5.2)	Pass
5.3	**Abnormal operating and fault conditions**		Pass
5.3.1	Protection against overload and abnormal operation	(see appended table 5.3)	Pass
5.3.2	Motors		N/A
5.3.3	Transformers	Transformers are protected by primary fuse and by regulating network.	Pass
5.3.4	Functional insulation ..... :	Functional insulation complies with the requirements (a), (b), or (c).	Pass
5.3.5	Electromechanical components		N/A
5.3.6	Audio amplifiers in ITE..... :		N/A
5.3.7	Simulation of faults	Transformer temperatures measured for compliance with Annex C during test.	Pass
5.3.8	Unattended equipment	The equipment is not intended for unattended use.	N/A
5.3.9	Compliance criteria for abnormal operating and fault conditions	No fire, emission of molten metal or deformation was noted during the tests. Electric Strength tests performed after abnormal and fault tests.	Pass
5.3.9.1	During the tests		Pass
5.3.9.2	After the tests		Pass

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Clause	Requirement + Test	Result - Remark	Verdict
6	**CONNECTION TO TELECOMMUNICATION NETWORKS**		N/A
6.1	Protection of telecommunication network service persons, and users of other equipment connected to the network, from hazards in the equipment		N/A
6.1.1	Protection from hazardous voltages		N/A
6.1.2	Separation of the telecommunication network from earth		N/A
6.1.2.1	Requirements		N/A
	Supply voltage (V) ..... :		-
	Current in the test circuit (mA)..... :		-
6.1.2.2	Exclusions..... :		N/A
6.2	**Protection of equipment users from overvoltages on telecommunication networks**		N/A
6.2.1	Separation requirements		N/A
6.2.2	Electric strength test procedure		N/A
6.2.2.1	Impulse test		N/A
6.2.2.2	Steady-state test		N/A
6.2.2.3	Compliance criteria		N/A
6.3	**Protection of the telecommunication wiring system from overheating**		N/A
	Max. output current (A)..... :		-
	Current limiting method ..... :		-

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Clause	Requirement + Test	Result - Remark	Verdict

7	**CONNECTION TO CABLE DISTRIBUTION SYSTEMS**		N/A
7.1	General		N/A
7.2	Protection of cable distribution system service persons, and users of other equipment connected to the system, from hazardous voltages in the equipment		N/A
7.3	Protection of equipment users from overvoltages on the cable distribution system		N/A
7.4	Insulation between primary circuits and cable distribution systems		N/A
7.4.1	General		N/A
7.4.2	Voltage surge test		N/A
7.4.3	Impulse test		N/A

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict
A	**ANNEX A, TESTS FOR RESISTANCE TO HEAT AND FIRE**		N/A
A.1	Flammability test for fire enclosures of movable equipment having a total mass exceeding 18 kg, and of stationary equipment (see 4.7.3.2)		N/A
A.1.1	Samples ..... :		-
	Wall thickness (mm) ..... :		-
A.1.2	Conditioning of samples; temperature (°C) ..... :		N/A
A.1.3	Mounting of samples ..... :		N/A
A.1.4	Test flame (see IEC 60695-11-3)		N/A
	Flame A, B, C or D ..... :		N/A
A.1.5	Test procedure		N/A
A.1.6	Compliance criteria		N/A
	Sample 1 burning time (s) ..... :		-
	Sample 2 burning time (s) ..... :		-
	Sample 3 burning time (s) ..... :		-
A.2	Flammability test for fire enclosures of movable equipment having a total mass not exceeding 18 kg, and for material and components located inside fire enclosures (see 4.7.3.2 and 4.7.3.4)		N/A
A.2.1	Samples, material ..... :		-
	Wall thickness (mm) ..... :		-
A.2.2	Conditioning of samples; temperature (°C) ..... :		N/A
A.2.3	Mounting of samples ..... :		N/A
A.2.4	Test flame (see IEC 60695-11-4)		N/A
	Flame A, B or C ..... :		-
A.2.5	Test procedure		N/A
A.2.6	Compliance criteria		N/A
	Sample 1 burning time (s) ..... :		-
	Sample 2 burning time (s) ..... :		-
	Sample 3 burning time (s) ..... :		-
A.2.7	Alternative test acc. to IEC 60695-11-5, cl. 5 and 9		N/A
	Sample 1 burning time (s) ..... :		-
	Sample 2 burning time (s) ..... :		-
	Sample 3 burning time (s) ..... :		-
A.3	Hot flaming oil test (see 4.6.2)		N/A
A.3.1	Mounting of samples		N/A
A.3.2	Test procedure		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
A.3.3	Compliance criterion		N/A
B	**ANNEX B, MOTOR TESTS UNDER ABNORMAL CONDITIONS (see 4.7.2.2 and 5.3.2)**		N/A
B.1	General requirements		N/A
	Position ..... :		-
	Manufacturer ..... :		-
	Type ..... :		-
	Rated values ..... :		-
B.2	Test conditions		N/A
B.3	Maximum temperatures		N/A
B.4	Running overload test		N/A
B.5	Locked-rotor overload test		N/A
	Test duration (days) ..... :		-
	Electric strength test: test voltage (V) ..... :		-
B.6	Running overload test for d.c. motors in secondary circuits		N/A
B.6.1	General		N/A
B.6.2	Test procedure		N/A
B.6.3	Alternative test procedure		N/A
B.6.4	Electric strength test; test voltage (V) ..... :		N/A
B.7	Locked-rotor overload test for d.c. motors in secondary circuits		N/A
B.7.1	General		N/A
B.7.2	Test procedure		N/A
B.7.3	Alternative test procedure		N/A
B.7.4	Electric strength test; test voltage (V) ..... :		N/A
B.8	Test for motors with capacitors		N/A
B.9	Test for three-phase motors		N/A
B.10	Test for series motors		N/A
	Operating voltage (V) ..... :		-

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Clause	Requirement + Test	Result - Remark	Verdict
C	**ANNEX C, TRANSFORMERS (see 1.5.4 and 5.3.3)**		Pass
	Position ..... :	T1	-
	Manufacturer ..... :	XEPEX	-
	Type ..... :	B9111-1673000110(1.0)	-
	Rated values ..... :	T1 employs Class B (130C), Type SPB-6	-
	Method of protection ..... :	Regulating Network	-
C.1	Overload test	(see appended table 5.3)	Pass
C.2	Insulation	(see appended table 5.2)	Pass
	Protection from displacement of windings ..... :	Triple insulated wire used	Pass
D	**ANNEX D, MEASURING INSTRUMENTS FOR TOUCH-CURRENT TESTS (see 5.1.4)**		Pass
D.1	Measuring instrument	Simpson 228	Pass
D.2	Alternative measuring instrument		N/A
E	**ANNEX E, TEMPERATURE RISE OF A WINDING (see 1.4.13)**		N/A
F	**ANNEX F, MEASUREMENT OF CLEARANCES AND CREEPAGE DISTANCES (see 2.10 and Annex G)**		Pass

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Clause	Requirement + Test	Result - Remark	Verdict

G	**ANNEX G, ALTERNATIVE METHOD FOR DETERMINING MINIMUM CLEARANCES**		N/A
G.1	Clearances		N/A
G.1.1	General		N/A
G.1.2	Summary of the procedure for determining minimum clearances		N/A
G.2	Determination of mains transient voltage (V)		N/A
G.2.1	AC mains supply ..... :		N/A
G.2.2	Earthed d.c. mains supply ..... :		N/A
G.2.3	Unearthed d.c. mains supply ..... :		N/A
G.2.4	Battery operation ..... :		N/A
G.3	Determination of telecommunication network transient voltage (V) : ..... :		N/A
G.4	Determination of required withstand voltage (V)		N/A
G.4.1	Mains transients and internal repetitive peaks ..... :		N/A
G.4.2	Transients from telecommunication networks ..... :		N/A
G.4.3	Combination of transients		N/A
G.4.4	Transients from cable distribution systems		N/A
G.5	Measurement of transient voltages (V)		N/A
	a) Transients from a mains supply		N/A
	For an a.c. mains supply		N/A
	For a d.c. mains supply		N/A
	b) Transients from a telecommunication network		N/A
G.6	Determination of minimum clearances ..... :		N/A

H	**ANNEX H, IONIZING RADIATION (see 4.3.13)**		N/A

J	**ANNEX J, TABLE OF ELECTROCHEMICAL POTENTIALS (see 2.6.5.6)**		Pass
	Metal(s) used ..... :	Aluminum	-

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Clause	Requirement + Test	Result - Remark	Verdict

K	**ANNEX K, THERMAL CONTROLS (see 1.5.3 and 5.3.8)**		N/A
K.1	Making and breaking capacity		N/A
K.2	Thermostat reliability; operating voltage (V) ..... :		N/A
K.3	Thermostat endurance test; operating voltage (V) :		N/A
K.4	Temperature limiter endurance; operating voltage (V) ..... :		N/A
K.5	Thermal cut-out reliability		N/A
K.6	Stability of operation		N/A

L	**ANNEX L, NORMAL LOAD CONDITIONS FOR SOME TYPES OF ELECTRICAL BUSINESS EQUIPMENT (see 1.2.2.1 and 4.5.2)**		N/A
L.1	Typewriters		N/A
L.2	Adding machines and cash registers		N/A
L.3	Erasers		N/A
L.4	Pencil sharpeners		N/A
L.5	Duplicators and copy machines		N/A
L.6	Motor-operated files		N/A
L.7	Other business equipment		N/A

M	**ANNEX M, CRITERIA FOR TELEPHONE RINGING SIGNALS (see 2.3.1)**		N/A
M.1	Introduction		N/A
M.2	Method A		N/A
M.3	Method B		N/A
M.3.1	Ringing signal		N/A
M.3.1.1	Frequency (Hz) ..... :		-
M.3.1.2	Voltage (V) ..... :		-
M.3.1.3	Cadence; time (s), voltage (V) ..... :		-
M.3.1.4	Single fault current (mA) ..... :		-
M.3.2	Tripping device and monitoring voltage ..... :		N/A
M.3.2.1	Conditions for use of a tripping device or a monitoring voltage		N/A
M.3.2.2	Tripping device		N/A
M.3.2.3	Monitoring voltage (V) ..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
N	**ANNEX N, IMPULSE TEST GENERATORS (see 1.5.7.2, 1.5.7.3, 2.10.3.9, 6.2.2.1, 7.3.2, 7.4.3 and Clause G.5)**		N/A
N.1	ITU-T impulse test generators		N/A
N.2	IEC 60065 impulse test generator		N/A
P	**ANNEX P, NORMATIVE REFERENCES**		Pass
Q	**ANNEX Q, Voltage dependent resistors (VDRs) (see 1.5.9.1)**		Pass
	a) Preferred climatic categories..... :	UL-Recognized VDR used.	Pass
	b) Maximum continuous voltage..... :	UL-Recognized VDR used.	Pass
	c) Pulse current ..... :	UL-Recognized VDR used.	Pass
R	**ANNEX R, EXAMPLES OF REQUIREMENTS FOR QUALITY CONTROL PROGRAMMES**		N/A
R.1	Minimum separation distances for unpopulated coated printed boards (see 2.10.6.2)		N/A
R.2	Reduced clearances (see 2.10.3)		N/A
S	**ANNEX S, PROCEDURE FOR IMPULSE TESTING (see 6.2.2.3)**		N/A
S.1	Test equipment		N/A
S.2	Test procedure		N/A
S.3	Examples of waveforms during impulse testing		N/A
T	**ANNEX T, GUIDANCE ON PROTECTION AGAINST INGRESS OF WATER (see 1.1.2)**		N/A
	..... :		-
U	**ANNEX U, INSULATED WINDING WIRES FOR USE WITHOUT INTERLEAVED INSULATION (see 2.10.5.4)**		Pass
	..... :	See Table 1.5.1	-

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V	**ANNEX V, AC POWER DISTRIBUTION SYSTEMS (see 1.6.1)**		Pass
V.1	Introduction		Pass
V.2	TN power distribution systems		Pass
W	**ANNEX W, SUMMATION OF TOUCH CURRENTS**		N/A
W.1	Touch current from electronic circuits		N/A
W.1.1	Floating circuits		N/A
W.1.2	Earthed circuits		N/A
W.2	Interconnection of several equipments		N/A
W.2.1	Isolation		N/A
W.2.2	Common return, isolated from earth		N/A
W.2.3	Common return, connected to protective earth		N/A
X	**ANNEX X, MAXIMUM HEATING EFFECT IN TRANSFORMER TESTS (see clause C.1)**		Pass
X.1	Determination of maximum input current		Pass
X.2	Overload test procedure		Pass
Y	**ANNEX Y, ULTRAVIOLET LIGHT CONDITIONING TEST (see 4.3.13.3)**		N/A
Y.1	Test apparatus..... :		N/A
Y.2	Mounting of test samples..... :		N/A
Y.3	Carbon-arc light-exposure apparatus..... :		N/A
Y.4	Xenon-arc light-exposure apparatus ..... :		N/A
Z	**ANNEX Z, OVERVOLTAGE CATEGORIES (see 2.10.3.2 and Clause G.2)**		Pass
AA	**ANNEX AA, MANDREL TEST (see 2.10.5.8)**		N/A
BB	**ANNEX BB, CHANGES IN THE SECOND EDITION**		N/A

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CC	**ANNEX CC, EVALUATION OF INTEGRATED CIRCUIT (IC) CURRENT LIMITERS**		N/A
CC.1	General		N/A
CC.2	Test program 1 ..... :		N/A
CC.3	Test program 2 ..... :		N/A

DD	**ANNEX DD, REQUIREMENTS FOR THE MOUNTING MEANS OF RACK-MOUNTED EQUIPMENT**		N/A
DD.1	General		N/A
DD.2	Mechanical strength test, variable N ..... :		N/A
DD.3	Mechanical strength test, 250 N, including end stops ..... :		N/A
DD.4	Compliance..... :		N/A

EE	**ANNEX EE, HOUSEHOLD AND HOME/OFFICE DOCUMENT/MEDIA SHREDDERS**		N/A
EE.1	General		N/A
EE.2	Markings and instructions		N/A
	Use of markings or symbols ..... :		N/A
	Information of user instructions, maintenance and/or servicing instructions..... :		N/A
EE.3	Inadvertent reactivation test ..... :		N/A
EE.4	Disconnection of power to hazardous moving parts		N/A
	Use of markings or symbols ..... :		N/A
EE.5	Protection against hazardous moving parts ..... :		N/A
	Test with test finger (Figure 2A)		N/A
	Test with wedge probe (Figure EE1 and EE2)..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	**TABLE: list of critical components**				Pass
object/part or Description	manufacturer/ trademark	type/model	technical data	standard (Edition or year)	mark(s) of conformity[1])
Enclosure	-	-	Aluminum, 1.2 mm thick. Approximately 152 by 105 by 87 mm	-	-, -
Appliance Inlet	Tec-x	TU-301-A	250Vac, Min 10A	UL498, IEC60320-1, EN60320	UL, VDE, CSA, CCC, Semko, Fimko, Demko Nemko
Appliance Inlet alternate	Supercom	SC-9	250Vac, Min 10A	UL498, IEC60320-1, EN60320	UL, CELELEC, VDE, CSA, CCC, Semko, Fimko, Demko, Nemko
Appliance Inlet alternate	Rich bay	R-301	250Vac, Min.10A	UL498, IEC60320-1, EN60320	UL, UL, VDE
Appliance Inlet alternate	BEJ	ST-A01 series	250Vac, Min.10A	UL498, IEC60320-1, EN60320	UL, UL, VDE
Appliance Inlet alternate	TECX	TU-301	250Vac, Min.10A	UL498, IEC60320-1, EN60320	UL, UL, VDE
Appliance Inlet alternate	Sun Fair	S-03	250Vac, Min.10A	UL498, IEC60320-1, EN60320	UL, UL, VDE
Appliance Inlet alternate	Supercom	SC-8R	250Vac, Min.10A	UL498, IEC60320-1, EN60320	UL, UL, VDE
Appliance Inlet alternate	Steady Electronic Corp.	2107	250Vac, Min.10A	UL498, IEC60320-1, EN60320	UL, UL, VDE
Appliance Inlet alternate	Shenzhen Delikang Electronics	CDJ-3	250Vac, Min.10A	UL498, IEC60320-1, EN60320	UL, UL, VDE
Appliance Inlet alternate	Leci	DB-14	250Vac, Min.10A	UL498, IEC60320-1, EN60320	UL, UL, VDE
Internal wiring, appliance inlet to PWB/Chassis	-	-	Min. 20AWG, Style 1015, 600V, 105°C	UL758	UL, -
Insulating Tubing/Sleeving	-	-	FEP, PTFE, PVC, TFE, neoprene, polyimide or	UL224	UL, -

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			marked VW-1; rated 105ºC, 300 V.		
Printed Wiring Board	-	-	Rated minimum V-0, 130ºC.	UL796	UL, -
Fuse F1	Walter	FSD Series	250V, 2A	UL248, IEC60127	UL, CSA, VDE, Semko, BSI, CCC, PSE
Fuse F1, alternate	Littelfuse	217 Series	250V, 2A	UL248, IEC60127	UL, CSA, VDE, Semko, BSI, CCC, PSE
Fuse F1, alternate	Bel	RST Series	250V, 2A	UL248, IEC60127	UL, CSA, VDE, Semko, CCC, PSE
Fuse F1, alternate	Bussmann	SR-5-2A	250V, 2A	UL248, IEC60127	UL, CSA, VDE, Semko, CCC, Meti, EK
Capacitors CY1 and CY2	TDK	CS, CD Series	Rated maximum 1000 pF, minimum 250 Vac. Class Y1 or Y2.	UL1283, UL1414, IEC60384-14, EN132400	UL, BSI, SEV, Fimko, Nemko, Semko, Demko, IMQ, VDE
Capacitors CY1 and CY2 alternate	Jya-Nay Co Ltd	JN, JY Series	Rated maximum 1000 pF, minimum 250 Vac. Class Y1 or Y2.	UL1283, UL1414, IEC60384-14, EN132400	UL, BSI, SEV, Fimko, Nemko, Semko, Demko, VDE, ENEC, CQC, EK
Capacitors CY1 and CY2 alternate	Success	SE, SB Series	Rated maximum 1000 pF, minimum 250 Vac. Class Y1 or Y2.	UL1283, UL1414, IEC60384-14, EN132400	UL, CSA, SEV, Fimko, Nemko, Semko, Demko, VDE
Capacitors CY1 and CY2 alternate	HAOHUA ELECTRONIC	CT 7	Rated maximum 1000 pF, minimum 250 Vac. Class Y1 or Y2.	UL1283, UL1414, IEC60384-14, EN132400	UL, UL,VDE
Capacitors CY1 and CY2 alternate	WALSIN TECHNOLOGY CORP	AC, AH	Rated maximum 1000 pF, minimum 250 Vac. Class Y1 or Y2.	UL1283, UL1414, IEC60384-14, EN132400	UL, UL,VDE
Capacitors CY1 and CY2 alternate	WELSON INDUSTRIAL CO LTD	WD	Rated maximum 1000 pF, minimum 250 Vac. Class Y1 or Y2.	UL1283, UL1414, IEC60384-14, EN132400	UL, UL,VDE
Capacitors CY1	Chyun Fuh	CE	Rated maximum	UL1283,	UL, UL,VDE

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and CY2 alternate	Electronic Co Ltd		1000 pF, minimum 250 Vac. Class Y1 or Y2.	UL1414, IEC60384-14, EN132400	
Capacitors CY1 and CY2 alternate	Jyh Chung Electronic Co Ltd	JD	Rated maximum 1000 pF, minimum 250 Vac. Class Y1 or Y2.	UL1283, UL1414, IEC60384-14, EN132400	UL, UL,VDE
Capacitors CY1 and CY2 alternate	KUNSHAN WANSHENG ELECTRONICS CO LTD	CT7	Rated maximum 1000 pF, minimum 250 Vac. Class Y1 or Y2.	UL1283, UL1414, IEC60384-14, EN132400	UL, UL,VDE
Surge Arrestor VR1 alternate	Centra Science Corp	CNR10D471K CNR14D471K	300Vac	UL1449, IEC61051-2	UL, UL, VDE
Surge Arrestor VR1 alternate	Thinking Electronics	TVR10471 TVR14471	300Vac	UL1449, IEC61051-2	UL, UL, VDE
Surge Arrestor VR1 alternate	Joyin	10N471K, 14N471K	300Vac	UL1449, IEC61051-2	UL, UL, VDE
Surge Arrestor VR1 alternate	Thinking Electronic	TVR10471K, TVR14471K	300Vac	UL1449, IEC61051-2	UL, UL, VDE
Surge Arrestor VR1 alternate	Success Electronics Co Ltd	SVR10D471K, SVR14D471K	300Vac	UL1449, IEC61051-2	UL, UL, VDE
Surge Arrestor VR1 alternate	Brightking	471KD14, 471KD10	300Vac	UL1449, IEC61051-2	UL, UL, VDE
Surge Arrestor VR1 alternate	Lien Shun	10D471K, 14D471K	300Vac	UL1449, IEC61051-2	UL, UL, VDE
Capacitors (CX1, CX3)	Cheng Tung Industry Co Ltd	CTX Series	Max.0.47 µF, Min.250 Vac, Min.Class X2.	UL1283, UL1414, IEC60384-14, EN132400	UL, CSA, VDE, SEV, Semko, Demko, Nemko, Fimko
Capacitors (CX1, CX3) alternate	UTX or Various	HQX Series	Max.0.47 µF, Min.250 Vac, Min.Class X2.	UL1283, UL1414, IEC60384-14, EN132400	UL, CSA, Fimko, Semko, Demko, Nemko, VDE, OVE, SEV
Capacitors (CX1, CX3) alternate	Dain Electronics Co Ltd	MPX Series	Max.0.47 µF, Min.250 Vac, Min.Class X2.	UL1283, UL1414, IEC60384-14, EN132400	UL, CSA, VDE, ENEC, Nemko, Semko, Demko, Fimko, CQC
Capacitors (CX1, CX3) alternate	Panasonic	ECQU2A474	Max.0.47 µF, Min.250 Vac, Min.Class X2.	UL1283, UL1414, IEC60384-14, EN132400	UL, CSA, VDE, SEV, Semko, Demko, Nemko, Fimko
Bleeder Resistors R1A, R1B and R1C	-	-	357kohm, 0.25 W	-	-, -

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Capacitor CY3	Murata	DE Series	Rated maximum 3.3 nF, minimum 250 Vac. Class Y1.	UL1283, UL1414, IEC60384-14, EN132400	UL, CSA, BSI, SEV, Fimko, Nemko, Semko, Demko, IMQ, VDE
Capacitor CY3 alternate	TDK	CD Series	Rated maximum 3.3 nF, minimum 250 Vac. Class Y1.	UL1283, UL1414, IEC60384-14, EN132400	UL, BSI, SEV, Fimko, Nemko, Semko, Demko, IMQ, VDE
Capacitor CY3 alternate	Success	SE, SB Series	Rated maximum 3.3 nF, minimum 250 Vac. Class Y1.	UL1283, UL1414, IEC60384-14, EN132400	UL, CSA, SEV, Fimko, Nemko, Semko, Demko, VDE
Capacitor CY3 alternate	Jya-Nay Co Ltd	JN, JY Series	Rated maximum 3.3 nF, minimum 250 Vac. Class Y1.	UL1283, UL1414, IEC60384-14, EN132400	UL, BSI, SEV, Fimko, Nemko, Semko, Demko, VDE, ENEC, CQC, EK
Transformer T1	Xepex, Wuxi Huipu, Yangshang or Globtek	B9111-1673000110(1.0)	Employs OBJT2 TIW and OBJY2 Class B insulation system. Constructed from the following components:	Tested in unit.	-, -
- Triple Insulated Wire	Furukawa	TEX-E	Rated 3000 V isolation	UL2353, IEC60950-1	UL, VDE
- Bobbin	Hitachi Chemical	CP-J-8800	Phenolic, V-0, 150 °C	UL746C	UL, --
- Winding Wire	Siam Pacific Electric	UEW-U	130 °C (MW 75C)	UL1446	UL, --
- Winding Wire, Alternate	Heng Ya Electric	TYPU-130	130 °C (MW 75C)	UL1446	UL, --
- Tape	3M Company	1350F	130 °C	UL510	UL, --
- Tubing	Zeus Industrial Products	TFE-TW-300	200 °C	UL224	UL, --
- Varnish	Hitachi Chemical	WP-2952F-2G	130 °C	UL1446	UL, --
- Varnish, alternate	Kyocera Chemical	TVB-2180T	155 °C	UL1446	UL, --
Optocoupler U4	Liteon	LTV-817	Minimum 3000 V ac isolation. Double protection	UL1577, IEC60950-1, EN60950-1, EN 60747-5-2	UL, VDE
Optocoupler U4 alternate	Cosmo Electronics Corp	KP1010	Minimum 3000 V ac isolation. Double protection	UL1577, EN60065, EN 60747-5-2 , EN60950-1	UL, VDE

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Optocoupler U4 alternate	Everlight	EL817	Minimum 3000 V ac isolation. Double protection	UL1577, EN60065, EN 60747-5-2, EN60950-1	UL, VDE
Optocoupler U4 alternate	Fairchild	H11A817B	Minimum 3000 V ac isolation. Double protection	UL1577, EN60065, EN 60747-5-2, EN60950-1	UL, VDE
Optocoupler U4 alternate	Sharp	PC817 PC818U PC123 PC1231	Minimum 3000 V ac isolation. Double protection	UL1577, EN60065, EN 60747-5-2, EN60950-1	UL, VDE
Output Cord	Jinan Pac Cable & Wire Co Ltd	-	Type CMP, 18AWG	ANSI/NFPA 262	UL, -
Inductors LF1, LF3	-	-	Open-type construction. Rated minimum 130°C.	Tested in unit	-, -
Label	Various	Various	150 ºC on metal.	UL969	UL, -
Supplementary information: [1]) Provided evidence ensures the agreed level of compliance. See OD-CB2039.					

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Clause	Requirement + Test	Result - Remark	Verdict

1.5.1	**TABLE: Opto Electronic Devices**			Pass
Manufacturer.....:				
Type.....:				
Separately tested.....:				
Bridging insulation.....:				
External creepage distance.....:				
Internal creepage distance.....:				
Distance through insulation.....:				
Tested under following conditions.....:				
Input.....:				
Output.....:				
supplementary information:				
See appended table 1.5.1				

1.6.2	**TABLE: electrical data (in normal conditions)**					Pass
U (V)	I (A)	I rated (A)	P (W)	Fuse #	I fuse (A)	condition/status
90	1.022	-	59.0	F1	2	50Hz Input, Rated Load
100	0.934	1.5	58.7	F1	2	50Hz Input, Rated Load
240	0.471	1.5	58.7	F1	2	50Hz Input, Rated Load
264	0.437	-	59.0	F1	2	50Hz Input, Rated Load
90	0.989	-	59.2	F1	2	60Hz Input, Rated Load
100	0.913	1.5	58.6	F1	2	60Hz Input, Rated Load
240	0.508	1.5	59.0	F1	2	60Hz Input, Rated Load
264	0.455	-	59.3	F1	convert original data from mA	60Hz Input, Rated Load
supplementary information:						

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Clause	Requirement + Test	Result - Remark	Verdict

2.1.1.5 c) 1)	**TABLE: Max. V, A, VA test**				Pass
Voltage(rated) (V)	Current(rated) (A)	Voltage (max.) (V)	Current (max.) (A)	VA (max.) (VA)	
24	2.1	24.23	3.52	70.2	
supplementary information:					

2.1.1.5 c) 2)	**TABLE: Stored energy**		N/A
Capacitance C (µF)	Voltage U (V)	Energy E (J)	
supplementary information:			

2.2	**TABLE: Evaluation of voltage limiting components in SELV circuits**			Pass
Component (measured between)	max. voltage (V) (normal operation)		Voltage Limiting Components	
	V Peak	V d.c.		
Vout	-	0	D5	
Vout	-	30.4	U4	
Vout	-	27.2	C8	
Fault test performed on voltage limiting components	Voltage measured (V) in SELV circuits (V peak or V d.c.)			
supplementary information:				

2.5	**TABLE: limited power sources**				Pass
Circuit output tested:	yes				
Measured Uoc (V) with all load circuits disconnected:	yes				
	Isc (A)		VA		
	Meas.	Limit	Meas.	Limit	

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Normal condition	3	8	93	100
supplementary information:				
Sc=short circuit, Oc-Open circuit				

2.10.2	**TABLE: working voltage measurement**		Pass
Location	RMS Voltage (V)	Peak voltage (V)	Comments
T1 primary winding	210.6	512	-
T1 bias winding	30.5	70	-
T1 secondary winding	50.78	108	-
T1 C2 node to C8 node	74.24	196	-
T1 C2 node to CY3 node	58	94	-
supplementary information:			

2.10.3 and 2.10.4	**TABLE: clearance and creepage distance measurements**					Pass
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Primary to Secondary	338	240	4	7.5	4.8	7.5
Primary to Chassis	338	240	2	5.5	2.4	5.5
Functional:						
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Basic/supplementary:						
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
Reinforced:						
Clearance (cl) and creepage distance (cr) at/of/between:	U peak (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	Required cr (mm)	cr (mm)
supplementary information:						
Working voltages measured are below input rating.						

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2.10.5	**TABLE: distance through insulation measurements**				Pass
Distance through insulation (DTI) at/of:	U peak (V)	Urms (V)	Test voltage (V)	Required DTI (mm)	DTI (mm)
supplementary information:					
See Table 1.5.1 for optical isolator and Triple insulated wire information.					

4.3.8	**TABLE: Batteries**									N/A
The tests of 4.3.8 are applicable only when appropriate battery data is not available.										
Is it possible to install the battery in a reverse polarity position?										
	Non-rechargeable batteries			Rechargeable batteries						
	Discharging		Un-intentional charging	Charging		Discharging		Reversed charging		
	Meas. current	Manuf. specs.		Meas. current	Manuf. specs.	Meas. current	Manuf. specs.	Meas. current	Manuf. specs.	
Max. current during normal operation										
Max. current during fault operation										

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Test results:		Verdict
- Chemical leaks		N/A
- Explosion of the battery		N/A
- Emission of flame or expulsion of molten metal		N/A
- Electric strength tests of equipment after completion of tests		N/A
supplementary information:		

4.3.8	**TABLE: Batteries**		N/A
Battery Category (Lithium, NiMh, NiCad, Lithium ion, etc.).....:			
Manufacturer.....:			
Type/Model.....:			
Voltage.....:			
Capacity (mAh).....:			
Tested and Certified by (incl. Ref. No.).....:			
Circuit protection diagram (Refer indicated supplement of Enclosure-Miscellaneous).....:			
MARKINGS AND INSTRUCTIONS (1.7.12, 1.7.15)			
Location of replaceable battery.....:			
Language(s).....:			
Close to the battery.....:			
In the servicing instructions.....:			
In the operating instructions.....:			
In the operating instructions			
supplementary information:			
Additional devices may be described in Enclosure - Miscellaneous			

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Clause	Requirement + Test	Result - Remark	Verdict

4.5	**TABLE: Thermal requirements**						Pass
	Supply voltage (V)..... :	90 V/ 60 Hz	264 V/ 60 Hz	-	-	-	—
	Ambient Tmin (°C) ..... :	20.4	20.2	-	-	-	—
	Ambient Tmax (°C) ..... :	20.3	19.8	-	-	-	—
Maximum measured temperature T of part/at:		T (°C)					allowed Tmax (°C)
IEC Inlet		31.0	29.4	-	-	-	50
LF3 coil		68.8	54.8	-	-	-	110
CX1		52.4	48.7	-	-	-	70
HS near DB1		71.7	65.4	-	-	-	-
T1 coil		70.3	71.3	-	-	-	90
T1 core		68.9	71.3	-	-	-	90
C1 body		63.1	56.3	-	-	-	85
U4		68.7	69.0	-	-	-	80
HS near Q1		70.4	67.9	-	-	-	-
L3 coil		53.7	54.7	-	-	-	85
PWB under T1		73.0	75.5	-	-	-	85
Enclosure over T1 (ceiling mounted)		33.4	32.2	-	-	-	50
temperature T of winding:	t_1 (°C)	R_1 (Ω)	t_2 (°C)	R_2 (Ω)	T (°C)	allowed T_{max} (°C)	insulation class
-	-	-	-	-	-	-	-
supplementary information:							
-							

4.5.5	**TABLE: Ball pressure test of thermoplastic parts**		Pass
	allowed impression diameter (mm) ..... :	less than or equal to 2.0	—
part		test temperature (°C)	impression diameter (mm)
supplementary information:			
It has been determined from examination of the physical characteristics of the materials used that the material meets the requirements of the test. (Bobbin material is phenolic).			

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4.7	**TABLE: resistance to fire**				Pass
part	manufacturer of material	type of material	thickness (mm)	flammability class	Evidence
supplementary information:					
Method 1 used, see Table 1.5.1.					

5.1	**TABLE: touch current measurement**		Pass
Measured between:	Measured (mA)	Limit (mA)	Comments/Conditions
Terminal A of measuring instrument and Chassis	0.119	3.5	-
supplementary information:			

5.2	**TABLE: electric strength tests, impulse tests and voltage surge tests**		Pass
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Input / Output	DC	4242 Vdc	NO
Input / Chassis	DC	2121 Vdc	NO
Functional:			
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Basic/supplementary:			
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No
Reinforced:			
Test voltage applied between:	Voltage shape (AC, DC, impulse, surge)	Test voltage (V)	Breakdown Yes / No

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Clause	Requirement + Test	Result - Remark	Verdict

supplementary information:

5.3	**TABLE: fault condition tests**						Pass
	ambient temperature (° C) ..... :				21°C		—
	Power source for EUT: Manufacturer, model/type, output rating ..... :				See ratings		—
Component No.	Fault	Supply voltage (V)	Test time	Fuse #	Fuse current (A)	Observation	
C1	Short	264	1sec.	F1	-	IP(fuse opened < 1 sec),NB,NC,NT	
BD1	Short +AC to +DC	264	1sec.	F1	-	IP(fuse opened < 1 sec),NB,NC,NT	
Q1	Short D to S	264	1sec.	F1	-	CD(R19,R19A opened),NB,NC,NT. See note 1	
T1 Secondary winding after D5	Overload	264	4 hrs	F1	0.277A pulsed	Any current will cause supply to go into pulsed, latched, shut down within several min. Tested unit with 3A output load. CT,NB,NC,NT T1=37.7 degC	
Output	Overload	90	4 Hrs	F1	1.271	CT,NB,NC,NT T1=89.4 degC	
Output	Short	90	4 Hrs	F1	0.086 pulsed	CT,NB,NC,NT T1=29.6 degC	
D5	Short	264	-	F1	0.0	Monitored for SELV. 0.0 V, latched shutdown	
U4	Short 1-2	264	-	F1	0.003	Monitored for SELV. 30.4 Vdc, latched shutdown	
C8	Short	264	-	F1	0.421	Monitored for SELV. 27.2 Vdc	
supplementary information:							

IEC 60950-1			
Clause	Requirement + Test	Result - Remark	Verdict

C.2	**TABLE: transformers**						Pass
Loc.	Tested insulation	Working voltage peak /V (2.10.2)	Working voltage rms /V (2.10.2)	Required electric strength (5.2)	Required clearance / mm (2.10.3)	Required creepage distance / mm (2.10.4)	Required distance thr. insul. (2.10.5)
Loc.	Tested insulation			Test voltage / V	Measured clearance / mm	Measured creepage dist./mm	Measured distance thr. insul / mm; number of layers
Transformer type number				Enclosure - Miscellaneous ID			
supplementary information:							
See appended table 1.5.1							

Enclosure

National Differences

Austria**
Belgium**
China*
Czech Republic**
Denmark
France**
Germany
Greece**
Group
Hungary**
Ireland
Italy**
Netherlands**
Poland**
Portugal**
Singapore*
Slovakia**
Slovenia**
Spain
Sweden
Switzerland
USA / Canada
United Kingdom

* No National Differences Declared
** Only Group Differences

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
Denmark - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009			
1.2.4.1	In Denmark, certain types of Class I appliances (see sub-clause 3.2.1.1) may be provided with plug not establishing earthing continuity when inserted into Danish socket-outlets.	Noted.	Pass
1.7.5	In Denmark, socket-outlets for providing power to other equipment shall be in accordance with the Heavy Current Regulations, Section 107-2-D1, Standard Sheet DK 1-3a, DK 1-5a or DK 1-7a, when used on Class I equipment. For stationary equipment, the socket-outlet shall be in accordance with Standard Sheet DK 1-1b or DK 1-5a.		N/A
1.7.5	For CLASS II EQUIPMENT the socket outlet shall be in accordance with Standard Sheet DKA 1-4a. (Heavy Current Regulations, Section 107-2-D1)		Pass
3.2.1.1	Supply cord of single-phase equipment having a rated current not exceeding 13 A shall be provided with a plug according to the Heavy Current Regulations, Section 107-2-D1. CLASS I EQUIPMENT provided with socket-outlets with earth contact or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules shall be provided with a plug in accordance with standard sheet DK 2-1a or DK 2-5a. If poly-phase equipment and single-phase equipment having a RATED CURRENT exceeding 13 A is provided with a supply cord with a plug, this plug shall be in accordance with the Heavy Current Regulations, Section 107-2-D1 or EN 60309-2.	Power supply cord not supplied with product.	N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
Germany - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009			
1.7.2.1	According to GPSG, section 2, clause 4: If certain rules on the use, supplementation or maintenance of an item of technical work equipment or ready-to-use commodity must be observed in order to guarantee safety and health, instructions for use in German must be supplied when it is brought into circulation.	See attached manufacturer's letter of assurance.	Pass

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
Group - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009			
1.1.1	Replace the text of NOTE 3 by the following: NOTE 3 The requirements of EN60065 may also be used to meet safety requirements for multimedia equipment. See IEC Guide 112, Guide on the Safety of Multimedia Equipment. For television sets, EN60065 applies.		N/A
1.2.3	Add the following definition. 1.2.3.Z1 Portable Sound System Small battery powered audio equipment -whose prime purpose is to listen to recorded or boardcasted sound; and -that uses headphones or earphones that can be worn in or on or around the ears; and -that allows the user to walk around NOTE: Examples are mini-disk or CD players, MP3 audio players or similar equipment.		N/A
1.5.1	Add the following NOTE Z1: The use of certain substances in electrical and electronic equipment is restricted within the EU: see Directive 2002/95/EC		N/A
1.7.2.1	Delete NOTE Z1 and addd the following paragraph at the end of the subclause: In addition, for a PORTABLE SOUND SYSTEM, the instructions shall include a a warning that excessive sound pressure from earphones and headphones can cause hearing loss.		Pass
2.7.1	Replace the subclause as follows: Basic requirements To protect against excessive current, short-circuits and earth faults in PRIMARY CIRCUITS, protective devices shall be included either as integral parts of the equipment or as parts of the building installation, subject to the following, a), b) and c): a) except as detailed in b) and c), protective devices necessary to comply with the requirements		Pass

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
	of 5.3 shall be included as parts of the equipment; b) for components in series with the mains input to the equipment such as the supply cord, appliance coupler, r.f.i. filter and switch, short-circuit and earth fault protection may be provided by protective devices in the building installation; c) it is permitted for PLUGGABLE EQUIPMENT TYPE B or PERMANENTLY CONNECTED EQUIPMENT, to rely on dedicated overcurrent and short-circuit protection in the building installation, provided that the means of protection, e.g. fuses or circuit breakers, is fully specified in the installation instructions. If reliance is placed on protection in the building installation, the installation instructions shall so state, except that for PLUGGABLE EQUIPMENT TYPE A the building installation shall be regarded as providing protection in accordance with the rating of the wall socket outlet.		
2.7.2	Void		N/A
3.2.3	Delete the NOTE and conduit sizes in parentheses in Table 3A		N/A
3.2.5.1	Replace: "60245 IEC 53" by "H05 RR-F" "60227 IEC 52" by "H03 VV-F or H03 VVH2-F" "60227 IEC 53" by "H05 VV-F or H05 VVH2-F" In Table 3B, replace the first four lines by the following: Up to and including 6 0.75 a) Over 6 up to and including 10 0.75 b) 1.0 Over 10 up to and including 16 1.0 c) 1.5 In the conditions applicable to table 3B, delete the words "in some countries" in condition a). In Note 1, applicable Table 3B, to delete the second sentence.		N/A
3.3.4	In table 3D, delete the fourth line: conductor		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
	sizes for 10 to 13 A, and replace with the following: "Over 10 up to and including 16 1.5 to 2.5 1.5 to by 4" Delete the fifth line: conductor sizes for 13 to 16A.		
4.3.13.6	Replace the existing NOTE by the following: NOTE Z1 Attention is drawn to 1999/519/EC: Council Recommendation on the limitation of exposure of the general public to electromagnetic fields 0 Hz to 300 GHz and 2006/25/EC: Directive on the minimum health and safety requirements regarding the exposure of workers to risks arising from physical agents (artificial optical radiation). Standards taking into account this Recommendation which demonstrate compliance with the applicable EU Directive are indicated in the OJEC.		N/A
H	Replace the last paragraph of this annex by: At any point 10 cm from the surface of the OPERATOR ACCESS AREA, the dose rate shall not exceed 1 µSv/h (0,1 mR/h) (see NOTE). Account is taken of the background level. Replace the notes as follows: NOTE - These values appear in Directive 96/29/Euratom. Delete NOTE 2.		N/A
Zx	Protection against excessive sound pressure from personal music players		N/A
Zx.1	General - This sub-clause specifies requirements for protection against excessive sound pressure from personal music players that are closely coupled to the ear. It also specifies requirements for earphones and headphones intended for use with personal music players. A personal music player is a portable equipment for personal use, that: - is designed to allow the user to listen to recorded		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
	or broadcast sound or video; and - primarily uses headphones or earphones that can be worn in or on or around the ears; and - allows the user to walk around while in use. NOTE 1 Examples are hand-held or body-worn portable CD players, MP3 audio players, mobile phones with MP3 type features, PDA's or similar equipment. A personal music player and earphones or headphones intended to be used with personal music players shall comply with the requirements of this sub-clause. The requirements in this sub-clause are valid for music or video mode only. The requirements do not apply: - while the personal music player is connected to an external amplifier; or - while the headphones or earphones are not used. NOTE 2 An external amplifier is an amplifier which is not part of the personal music player or the listening device, but which is intended to play the music as a standalone music player. The requirements do not apply to: - hearing aid equipment and professional equipment; NOTE 3 Professional equipment is equipment sold through special sales channels. All products sold through normal electronics stores are considered not to be professional equipment. - analogue personal music players (personal music players without any kind of digital processing of the sound signal) that are brought to the market before the end of 2015. NOTE 4 This exemption has been allowed because this technology is falling out of use and it is expected that within a few years it will no longer exist. This exemption will not be extended to other technologies. For equipment which is clearly designed or intended for use by young children, the limits of EN		

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
	71-1 apply.		
Zx.2	Equipment Requirements - No safety provision is required for equipment that complies with the following: - equipment provided as a package (personal music player with its listening device), where the acoustic output LAeq,T is ≤ 85 dBA measured while playing the fixed “programme simulation noise” as described in EN 50332-1; and - a personal music player provided with an analogue electrical output socket for a listening device, where the electrical output is ≤ 27 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” as described in EN 50332-1. NOTE 1 Wherever the term acoustic output is used in this clause, the 30 s A-weighted equivalent sound pressure level LAeq,T is meant. See also Zx.5 and Annex Zx. All other equipment shall: a) protect the user from unintentional acoustic outputs exceeding those mentioned above; and b) have a standard acoustic output level not exceeding those mentioned above, and automatically return to an output level not exceeding those mentioned above when the power is switched off; and c) provide a means to actively inform the user of the increased sound pressure when the equipment is operated with an acoustic output exceeding those mentioned above. Any means used shall be acknowledged by the user before activating a mode of operation which allows for an acoustic output exceeding those mentioned above. The acknowledgement does not need to be repeated more than once every 20 h of cumulative listening time; and NOTE 2 Examples of means include visual or audible signals. Action from the user is always required. NOTE 3 The 20 h listening time is the accumulative		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
	listening time, independent how often and how long the personal music player has been switched off. d) have a warning as specified in Zx.3; and e) not exceed the following: 1) equipment provided as a package (player with Its listening device), the acoustic output shall be ≤ 100 dBA measured while playing the fixed “programme simulation noise” described in EN 50332-1; and 2) a personal music player provided with an analogue electrical output socket for a listening device, the electrical output shall be ≤ 150 mV measured as described in EN 50332-2, while playing the fixed “programme simulation noise” described in EN 50332-1. For music where the average sound pressure (long term LAeq,T) measured over the duration of the song is lower than the average produced by the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. In this case T becomes the duration of the song. NOTE 4 Classical music typically has an average sound pressure (long term LAeq,T) which is much lower than the average programme simulation noise. Therefore, if the player is capable to analyse the song and compare it with the programme simulation noise, the warning does not need to be given as long as the average sound pressure of the song is below the basic limit of 85 dBA. For example, if the player is set with the programme simulation noise to 85 dBA, but the average music level of the song is only 65 dBA, there is no need to give a warning or ask an acknowledgement as long as the average sound level of the song is not above the basic limit of 85 dBA.		
Zx.3	Warning - The warning shall be placed on the equipment, or on the packaging, or in the instruction manual and shall consist of the following: - the symbol of Figure 1 (IEC 60417-6044) with a minimum height of 5 mm; and - the following wording, or similar:		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
	"To prevent possible hearing damage, do not listen at high volume levels for long periods." Alternatively, the entire warning may be given through the equipment display during use, when the user is asked to acknowledge activation of the higher level		
Zx.4	Requirements for Listening devices (headphones and earphones)		N/A
Zx.4.1	Wired listening devices with analogue input With 94 dBA sound pressure output LAeq,T, the input voltage of the fixed "programme simulation noise" described in EN 50332-2 shall be ≥ 75 mV. This requirement is applicable in any mode where the headphones can operate (active or passive), including any available setting (for example built-in volume level control). NOTE The values of 94 dBA – 75 mV correspond with 85dBA – 27 mV and 100 dBA – 150 mV.		N/A
Zx.4.2	Wired listening devices with digital input With any playing device playing the fixed "programme simulation noise" described in EN 50332-1 (and respecting the digital interface standards, where a digital interface standard exists that specifies the equivalent acoustic level), the acoustic output LAeq,T of the listening device shall be ≤ 100 dBA. This requirement is applicable in any mode where the headphones can operate, including any available setting (for example built-in volume level control, additional sound feature like equalization, etc.). NOTE An example of a wired listening device with digital input is a USB headphone.		N/A
Zx.4.3	Wireless listening devices In wireless mode:		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
	- with any playing and transmitting device playing the fixed programme simulation noise described in EN 50332-1; and - respecting the wireless transmission standards, where an air interface standard exists that specifies the equivalent acoustic level; and - with volume and sound settings in the listening device (for example built-in volume level control, additional sound feature like equalization, etc.)set to the combination of positions that maximize the measured acoustic output for the abovementioned programme simulation noise, the acoustic output LAeq,T of the listening device shall be ≤ 100 dBA. NOTE An example of a wireless listening device is a Bluetooth headphone.		
Zx.5	Measurement Methods Measurements shall be made in accordance with EN 50332-1 or EN 50332-2 as applicable. Unless stated otherwise, the time interval T shall be 30 s. NOTE Test method for wireless equipment provided without listening device should be defined.		N/A

Ireland - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009			
4.3.6	DIRECT PLUG-IN EQUIPMENT is known as plug similar devices. Such devices shall comply with Statutory Instrument 526:1997 - National Standards Authority of Ireland (Section 28) (Electrical plugs, plug similar devices and sockets for domestic use) Regulations, 1997.		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
Spain - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009			
3.2.1.1	Supply cords of single-phase equipment having a rated current not exceeding 10A shall be provided with a plug according to UNE 20315:1994. Supply cords of single-phase equipment having a rated current not exceeding 2.5A shall be provided with a plug according to UNE-EN 50075:1993. CLASS 1 EQUIPMENT provided with socket-outlets with earth contacts or which are intended to be used in locations where protection against indirect contact is required according to the wiring rules, shall be provided with a plug in accordance with standard UNE 20315:1994. If poly-phase equipment is provided with a supply cord with a plug, this plug shall be in accordance with UNE-EN 60309-2.	Power supply cord not supplied with product.	N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
Sweden - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009			
1.2.13.14	Requirements according to this annex 1.7.2.1 and 7.3 apply.		N/A
1.5.7.1	Resistors bridging BASIC INSULATION in CLASS I PLUGGABLE EQUIPMENT TYPE A must comply with the requirements in 1.5.7.2. In addition when a single resistor is used, the resistor must withstand the resistor test in 1.5.7.2.		Pass
1.5.9.4	The third dashed sentence is applicable only to equipment as defined by this annex, 6.1.2.2		N/A
1.7.2.1	CLASS I PLUGGABLE EQUIPMENT TYPE A intended for connection to other equipment or a network shall, if safety relies on connection to protective earth or if surge suppressors are connected between the network terminals and accessible parts, have a marking stating that the equipment must be connected to an earthed mains socket-outlet. The marking text shall be:"Apparaten skall anslutas till jordat uttag"	See attached manufacturer's letter of assurance.	Pass
1.7.2.1	In Sweden, the screen of the cable distribution system is normally not earthed at the entrance of the building and there is normally no equipotential bonding system within the building. Therefore the protective earthing of the building installation need to be isolated from the screen of a cable distribution system. It is however accepted to provide the insulation external to the equipment by an adapter or an interconnection cable with galvanic isolator, which may be provided by e.g. a retailer. The user manual shall then have the following or similar information in Norwegian and Swedish language respectively, depending on in what country the equipment is intended to be used in: "Equipment connected to the protective earthing of the building installation through the mains connection or through other equipment with a		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
	connection to protective earthing - and to a cable distribution system using coaxial cable, may in some circumstances create a fire hazard. Connection to a cable distribution system has therefore to be provided through a device providing electrical isolation below a certain frequency range (galvanic isolator, see EN 60728-11)." NOTE: In Norway, due to regulation for installations of cable distribution systems, and in Sweden, a galvanic isolator shall provide electrical insulation below 5 MHz. The insulation shall withstand a dielectric strength of 1,5 kV r.m.s., 50 Hz or 60 Hz, for 1 min. Translation to Swedish: "Utrustning som är kopplad till skyddsjord via jordat vägguttag och/eller via annan utrustning och samtidigt är kopplad till kabel-TV nät kan i vissa fall medföra risk för brand. För att undvika detta skall vid anslutning av utrustningen till kabel-TV nät galvanisk isolator finnas mellan utrustningen och kabel-TV nätet."		
2.3.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
2.10.5.13	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply.		N/A
5.1.7.1	TOUCH CURRENT measurement results exceeding 3,5 mA r.m.s are permitted only for the following equipment: STATIONARY PLUGGABLE EQUIPMENT TYPE A that: (1) is intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, for example, in a telecommunication centre; and (2) has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR; and (3) is provided with instructions for the installation of that conductor by a SERVICE PERSON; - STATIONARY PLUGGABLE TYPE B - STATIONARY PERMANENTLY CONNECTED EQUIPMENT		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
6.1.2.1	Add the following text between the first and second paragraph of the compliance clause: If this insulation is solid, including insulation forming part of a component, it shall at least consist of either - two layers of thin sheet material, each of which shall pass the electric strength test below, or - one layer having a distance through insulation of at least 0,4 mm, which shall pass the electric strength test below. Alternatively for components, there is no distance through insulation requirement for the insulation consisting of an insulating compound completely filling the casing, so that CLEARANCES and CREEPAGE DISTANCES do not exist, if the component passes the electric strength test in accordance with the compliance clause below and in addition - passes the tests and inspection criteria of 2.10.11 with an electric strength test of 1,5 kV multiplied by 1,6 (the electric strength test of 2.10.10 shall be performed using 1,5 kV), and - is subject to ROUTINE TESTING for electric strength during manufacturing, using a test voltage of 1,5 kV. It is permitted to bridge this insulation with an optocoupler complying with 2.10.5.4 b). It is permitted to bridge this insulation with a capacitor complying with EN 132400:1994, subclass Y2. A capacitor classified Y3 according to EN 132400 [EN 60384-14:2005], may bridge this insulation under the following conditions: - the insulation requirements are satisfied by having a capacitor classified Y3 as defined by EN 132400 [EN 60384-14], which in addition to the Y3 testing, is tested with an impulse test of 2,5 kV defined in EN 60950-1:2006, 6.2.2.1; - the additional testing shall be performed on all the test specimens as described in EN 132400 [EN 60384-14]; - the impulse test of 2,5 kV is to be performed before the endurance test in EN 132400 [EN 60384-14], in the sequence of tests as described in		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
	EN 132400 [EN 60384-14.]		
6.1.2.2	The exclusions are applicable for PERMANENTLY CONNECTED EQUIPMENT and PLUGGABLE EQUIPMENT TYPE B and equipment intended to be used in a RESTRICTED ACCESS LOCATION where equipotential bonding has been applied, e.g. in a telecommunication centre, and which has provision for a permanently connected PROTECTIVE EARTHING CONDUCTOR and is provided with instructions for the installation of that conductor by a SERVICE PERSON.		N/A
7.2	Requirements according to this annex, 6.1.2.1 and 6.1.2.2 apply with the term TELECOMMUNICATION NETWORK in 6.1.2 being replaced by the term CABLE DISTRIBUTION SYSTEM.		N/A
7.3	Requirements according to this annex 1.2.13.14 and 1.7.2.1 apply.		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict

Switzerland - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009			
3.2.1.1	Supply cords of equipment having a RATED CURRENT not exceeding 10A shall be provided with a plug complying with SEV 1011 or IEC 60884-1 and one of the following dimension sheets: SEV 6532-2 1991 Plug Type 15 3P+N+PE SEV 6533-2 1991 Plug Type 11 L+N SEV 6534-2 1991 Plug Type 12 L+N+PE In general, EN 60309 applies for plugs for currents exceeding 10A. However, a 16A plug and socket-outlet system is being introduced in Switzerland, the plugs of which are according to the following dimension sheets, published in February, 1998. SEV 5932-2 1998:Plug Type 25 3L+N+PE SEV 5933-2 1998:Plug Type 21 L+N SEV 5934-2 1998:Plug Type 23 L+N+PE	Power supply cord not supplied with product.	N/A
3.2.4	Requirements according to this annex 3.2.1.1 apply.		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict

USA / Canada - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009			
1.1	Equipment able to be installed in accordance with the National Electrical Code ANSI/NFPA 70 and the Canadian Electrical Code, Part1, and when applicable, the National Electrical Safety Code, IEEE C2.		Pass
1.1.1	Equipment able to be installed in accordance with ANSI/NFPA 75 and NEC Art. 645 unless intended for use outside of computer room and provided with such instructions.		Pass
1.1.2	Equipment in wire-line communication facilities serving high-voltage electric power stations operating at greater than 1kV are excluded.		N/A
1.1.2	Special requirements apply to equipment intended for use outdoors.		N/A
1.4.14	For PLUGGABLE EQUIPMENT TYPE A, the protection in the installation is assumed to be 20 A.		Pass
1.5.1	All IEC standards for components identified in Annex P.1 replaced by the relevant requirements of CSA and UL component standards in Annex P.1.		Pass
1.5.1	All IEC standards for components identified in Annex P.2 alternatively satisfied by the relevant requirements of CSA and UL component standards in Annex P.2.		Pass
1.5.5	Interconnecting cables acceptable for the application regarding voltage, current, temperature, flammability, mechanical serviceability and the like.	Interconnecting cables comply with the relevant requirements of this standard.	Pass

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
1.5.5	For other than limited power and TNV circuits, the type of output circuit identified for output connector.		N/A
1.5.5	External cable assemblies that exceed 3.05 m in length to be types specified in the NEC and CEC.		N/A
1.5.5	Detachable external interconnecting cables 3.05 m or less in length and provided with equipment marked to identify the responsible organization and the designation for the cable.		N/A
1.5.5	Building wiring and cable for use in ducts, plenums and other air handling space subject to special requirements and excluded from scope.		N/A
1.5.5	Telephone line and extension cords and the like comply with UL 1863 and CSA C22.2 No. 233.		N/A
1.6.1.2	Equipment intended for connection to a d.c. power (mains) distribution system is subject to special circuit classification requirements (e.g., TNV-2)		N/A
1.6.1.2	Earthing of d.c. powered equipment provided.		N/A
1.7	Lamp replacement information indicated on lampholder in operator access area.		N/A
1.7.1	Special marking format for equipment intended for use on a supply system with an earthed neutral and more than one phase		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
	conductor.		
1.7.1	Equipment voltage rating not higher than rating of the plug except under special conditions.		N/A
1.7.6	Special fuse replacement marking for operator accessible fuses.		N/A
1.7.7	Identification of terminal connection of the equipment earthing conductor.	Earth symbol next to terminal	Pass
1.7.7	Connectors and field wiring terminals for external Class 2 or Class 3 circuits provided with marking indicating minimum Class of wiring to be used.		N/A
1.7.7	Marking located adjacent to terminals and visible during wiring.		N/A
2.1.1.1	Bare TNV conductive parts in the interior of equipment normally protected against contact by a cover intended for occasional removal are exempt provided instructions include directions for disconnection of TNV prior to removal of the cover.		N/A
2.3.1.b	Other telecommunication signaling systems (e.g., message waiting) than described in 2.3.1(b) are subject to M.4.		N/A
2.3.1.b	For TNV-2 and TNV-3 circuits with other than ringing signals and with voltages exceeding 42.4 Vp or 60 V d.c., the maximum current limit through a 2000 Ohm or greater resistor with loads disconnected is 7.1 mA peak or 30 mA d.c. under normal conditions.		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
2.3.1.b	Limits for measurements across 5000 ohm resistor in the event of a single fault are replaced after 200 ms with the limits of M.3.1.4.		N/A
2.3.2.1	In the event of a single fault, the limits of 2.2.3 apply to SELV circuits and accessible conductive parts.		N/A
2.3.2.4	Enamel coating on signal transformer winding wire allowed as an alternative to Basic insulation in specific telecommunication applications when subjected to special construction requirements and routine testing.		N/A
2.5	Overcurrent protection device required for Class 2 and Class 3 limiting in accordance with the NEC, or for a Limited Power Source, not interchangeable with devices of higher ratings if operator replaceable.		N/A
2.6	Equipment having receptacles for output a.c. power connectors generated from an internal separately derived source have the earthed (grounded) circuit conductor suitably bonded to earth.		N/A
2.6.3.3	For PLUGGABLE EQUIPMENT TYPE A, if a) b) or c) are not applicable, the current rating of the circuit is taken as 20 A		Pass
2.6.3.3	The first column on Table 2D requirement: “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration."		Pass
2.6.3.4	Capacity of connection between earthing terminal and parts required to be earthed subject to		N/A

IEC 60950-1:2005			
SubClause	Difference + Test	Result - Remark	Verdict
	special conditions based on the current rating of the circuit.		
2.6.3.4	Protective bonding conductors and their terminals of non-standard constructions (e.g. PWB traces) evaluated to limited short-circuit test of CSA C22.2 No.0.4.		N/A
2.6.4.1	Field wiring terminals for earthing conductors suitable for wire sizes (gauge) used in US and Canada.		N/A
2.7.1	Data for selection of special external branch circuit overcurrent devices marked on the equipment.		N/A
2.7.1	Standard supply outlets protected by overcurrent device in accordance with the NEC, and CEC, Part 1.		N/A
2.7.1	Overcurrent protection for individual transformers that distribute power to other units over branch circuit wiring.		N/A
2.7.1	Additional requirements for overcurrent protection apply to equipment provided with panelboards.		N/A
2.7.1	Non-motor-operated equipment requiring special overcurrent protective device marked with device rating.		N/A
2.10.5.12	Multi-layer winding wire subject to UL component wire requirements in addition to 2.10.5.12 and Annex U.		Pass

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SubClause	Difference + Test	Result - Remark	Verdict
3.1.1	Permissible combinations of internal wiring/external cable sizes for overcurrent and short circuit protection.		Pass
3.1.1	All interconnecting cables protected against overcurrent and short circuit.		Pass
3.2	Wiring methods permit connection of equipment to primary power supply in accordance with the NEC and CEC, Part 1.		Pass
3.2.1	Permitted use for flexible cords and plugs.		N/A
3.2.1	Flexible cords provided with attachment plug rated 125% of equipment current rating.		N/A
3.2.1	Any Class II equipment provided with 15 or 20 A standard supply outlets, Edison-base lampholders or single pole disconnect device provided with a polarized type attachment plug.		N/A
3.2.1.2	Equipment intended for connection to DC mains supply power systems complies with special wiring requirements (e.g., no permanent connection to supply by flexible cord).		N/A
3.2.1.2	Equipment with one pole of the DC mains supply connected to both the equipment mains input terminal and the main protective earthing terminal provided with special instructions and construction provisions for earthing.		N/A
3.2.1.2	Equipment with means for connecting supply to earthing electrode conductor has no switches or protective devices between supply		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	connection and earthing electrode connection.		
3.2.1.2	Special markings and instructions for equipment with provisions to connect earthed conductor of a DC supply circuit to earthing conductor at the equipment.		N/A
3.2.1.2	Special markings and instructions for equipment with earthed conductor of a DC supply circuit connected to the earthing conductor at the equipment.		N/A
3.2.1.2	Terminals and leads provided for permanent connection of DC powered equipment to supply marked to indicate polarity if reverse polarity may result in a hazard.		N/A
3.2.3	Permanently connected equipment has provision for connecting and securing a field wiring system (i.e. conduit, or leads etc.) per the NEC and CEC, Part 1.		N/A
3.2.3	Permanently connected equipment may have terminals or leads not smaller than No. 18 AWG (0.82 mm²) and not less than 150 mm in length for connection of field installed wiring.		N/A
3.2.3	If supply wires exceed 60 °C, marking indicates use of 75 °C or 90 °C wiring for supply connection as appropriate.		N/A
3.2.3	Equipment compatible with suitable trade sizes of conduits and cables.		N/A
3.2.5	Power supply cords are required to be no longer than 4.5 m in length.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	Minimum cord length is required to be 1.5 m, with certain constructions such as external power supplies allowed to consider both input and output cord lengths into the requirement. Flexible power supply cords are required to be compatible with Article 400 of the NEC, and Tables 11 and 12 of the CEC.		
3.2.5	Conductors in power supply cords sized according to NEC and CEC, Part I.		N/A
3.2.5	Power supply cords and cord sets incorporate flexible cords suitable for the particular application.		N/A
3.2.6	Strain relief provided for non-detachable interconnecting cables not supplied by a limited power source.		N/A
3.2.9	Adequate wire bending space and volume of field wiring compartment required to properly make the field connections.		N/A
3.2.9	Equipment intended solely for installation in Restricted Access Locations using low voltage d.c. systems may not need provision for connecting and securing a field wiring system. A method of securing wiring or instructions provided to ensure the wiring is protected from abuse.		N/A
3.3	Field wiring terminals provided for interconnection of units for other than LPS or Class 2 circuits also comply with 3.3.		N/A
3.3	Interconnection of units by LPS or Class 2 conductors may have field wiring connectors other		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	than those specified in 3.3 if wiring is reliably separated.		
3.3.1	Terminals for the connection of neutral conductor identified by a distinctive white marking or other equally effective means.		N/A
3.3.3	Wire binding screw terminal permitted for connection of No. 10 AWG (5.3 mm²) or smaller conductor if provided with upturned lugs, cupped washer or equivalent retention.		N/A
3.3.4	Terminals accept wire sizes (gauge) used in the U.S. and Canada.		N/A
3.3.4	Terminals accept current-carrying conductors rated 125% of the equipment current rating.		N/A
3.3.5	First column of Table 3E requirement: “Smaller of the RATED CURRENT of the equipment or the PROTECTIVE CURRENT RATING of the circuit under consideration.”		N/A
3.3.6	Field wiring terminals marked to indicate the material(s) of the conductor appropriate for the terminals used.		N/A
3.3.6	Connection of an aluminum conductor not permitted to terminal for equipment earthing conductor.		N/A
3.3.6	Field wiring connections made through the use of suitable pressure connectors (including set screw type), solder lugs or splices to flexible leads.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
3.4.2	Separate motor control device(s) required for cord-connected equipment rated more than 12 A, or with motor rated more than 1/3 hp or more than 120 V.		N/A
3.4.8	Vertically mounted disconnect devices oriented so up position of handle is "on".		N/A
3.4.11	For computer-room applications, equipment with battery systems capable of supplying 750 VA for 5 min require battery disconnect means.		N/A
4.2.8.1	Special opening restrictions for enclosures around CRTs with face dimension of 160 mm or more.		N/A
4.2.9	Compartment housing high-pressure lamp marked to indicate risk of explosion.		N/A
4.2.11	For equipment intended for mounting on racks and provided with slide/rails allowing the equipment to slide away from the rack for installation, service and maintenance, additional construction, performance and marking requirements are applicable to determine the adequacy of the slide/rails.		N/A
4.3.2	Loading test for equipment with handle(s) used to support more than 9 kg tested at four times the weight of the unit.		N/A
4.3.6	In addition to the IEC requirements, Direct Plug-in Equipment complies with UL 1310 or CSA 223 mechanical assembly requirements.	See Test Record for details.	Pass
4.3.12			N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	The maximum quantity of flammable liquid stored in equipment complies with ANSI/NFPA 30(Table NAE.6).		
4.3.12	Equipment using replenishable liquids marked to indicate type of liquid to be used.		N/A
4.3.13.2	Equipment that produces x-radiation and does not comply with 4.3.12 under all conditions of servicing marked to indicate the presence of radiation where readily visible.		N/A
4.3.13.5	Requirements contained in the applicable national codes and regulations apply to lasers (21 CFR 1040 and REDR C1370).		N/A
4.7	Automated information storage equipment intended to contain more than 0.76 m^3 of combustible media requires provision for automatic sprinklers or a gaseous agent extinguishing system.		N/A
4.7.3.1	Equipment for use in environmental air space other than ducts or plenums provided with metal enclosure or with non-metallic enclosure having adequate fire-resistance and low smoke producing characteristics. Low smoke-producing characteristics evaluated according to UL 2043. Equipment for installation in space used for environmental air as described in Sec. 300-22(c) of the NEC provided with instructions indicating suitability for installation in such locations.		N/A
4.7.3.1	Flame spread rating for external surface of combustible material with exposed area greater than 0.93 m^2 or a single dimension greater than 1.8 m; 50 or less for computer room applications or 200 or less for other applications.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
4.7.3.4	Wire marked "VW-1" or "FT-1" considered equivalent.		Pass
5.1.8.2	Special earthing provisions and instructions for equipment with high touch current due to telecommunication network connections.		N/A
5.1.8.3	Touch current due to ringing voltage for equipment containing telecommunication network leads.		N/A
5.3.7	Overloading of SELV connectors and printed wiring board receptacles accessible to the operator.		Pass
5.3.7	Tests interrupted by opening of a component repeated two additional times.		N/A
5.3.9.1	Test interrupted by opening of wire or trace subject to certain conditions.	No opening of wire or trace	N/A
6	Specialized instructions provided for telephones that may be connected to a telecommunications network.		N/A
6	Marking identifying function of telecommunication type connectors not used for connection to a telecommunication network.		N/A
6.3	Equipment remotely powered over telecommunication wiring systems provided with specialized markings adjacent to the connection.		N/A
6.3	Overcurrent protection incorporated into		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	equipment to provide power over telecommunication wiring system not interchangeable with devices of higher ratings if operator replaceable.		
6.4	Additional requirements for equipment intended for connection to a telecommunication network using cable subject to overvoltage from power line failures (Fig. 6C).		N/A
6.4	Where 26 AWG line cord required by Fig. 6C, either the cord is provided with the equipment or described in the safety instructions.		N/A
7	Equipment associated with the cable distribution system may need to be subjected to applicable parts of Chapter 8 of the NEC.		N/A
H	Ionizing radiation measurements made under single fault conditions in accordance with the requirements of the Code of Federal Regulations 21 CFR 1020 and the Canadian Radiation Emitting Devices Act, REDR C1370.		N/A
M.2	Continuous ringing signals evaluated to Method A subjected to special accessibility considerations.		N/A
M.4	Special requirements for message waiting and similar telecommunications signals.		N/A
NAC	Equipment intended for use with a generic secondary protector marked with suitable instructions.		N/A
NAC	Equipment intended for use with a specific		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	primary or secondary protector marked with suitable instructions.		
NAD	Acoustic pressure from an ear piece less than 140 dBA for short duration disturbances, and less than 125 dBA for handsets, 118 dBA for headsets and insert earphones, for long duration disturbances.		N/A
NAD	Equipment connected to a telecommunication and cable distribution networks and supplied with an earphone intended to be held against, or in the ear is required to comply with special acoustic pressure requirements.		N/A
EE.5	UL articulated accessibility probe (Fig. EE.3) required for assessing accessibility to document/media shredders, instead of Figure 2A test finger.		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
United Kingdom - Differences to IEC 60950-1:2005 (2nd Edition); Am 1:2009			
2.6.3.3	The current rating of the circuit shall be taken as 13 A, not 16 A.		N/A
2.7.1	To protect against excessive currents and short-circuits in the PRIMARY CIRCUIT of DIRECT PLUG-IN EQUIPMENT, tests according to 5.3 shall be conducted, using an external protective device rated 30 A or 32 A. If these tests fail, suitable protective devices shall be included as integral parts of the DIRECT PLUG-IN EQUIPMENT, so that the requirements of 5.3 are met.		N/A
3.2.1.1	Apparatus which is fitted with a flexible cable or cord and is designed to be connected to a mains socket conforming to BS 1363 by means of that flexible cable or cord and plug, shall be fitted with a "standard plug" in accordance with Statutory Instrument 1786: 1994 - The Plugs and Sockets etc. (Safety) Regulations 1994, unless exempted by those regulations. NOTE: "Standard plug" is defined in SI 1786: 1994 and essentially means an approved plug conforming to BS 1363 or an approved conversion plug.		N/A
3.2.5.1	A power supply cord with conductor of 1.25 mm² is allowed for equipment with a rated current over 10A and up to and including 13A.		N/A
3.3.4	The range of conductor sizes of flexible cords to be accepted by terminals for equipment with a rated current of over 10 A up to and including 13 A is 1.25 mm² to 1.5 mm² nominal cross-sectional area.		N/A
4.3.6	The torque test is performed using a socket outlet complying with BS 1363 part 1:1995,		N/A

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SubClause	Difference + Test	Result - Remark	Verdict
	including Amendment 1:1997 and Amendment 2:2003 and the plug part of DIRECT PLUG-IN EQUIPMENT shall be assessed to BS 1363: Part 1, 12.1, 12.2, 12.3, 12.9, 12.11, 12.12, 12.13, 12.16 and 12.17, except that the test of 12.17 is performed at not less than 125 °C. Where the metal earth pin is replaced by an Insulated Shutter Opening Device (ISOD), the requirements of clauses 22.2 and 23 also apply.		